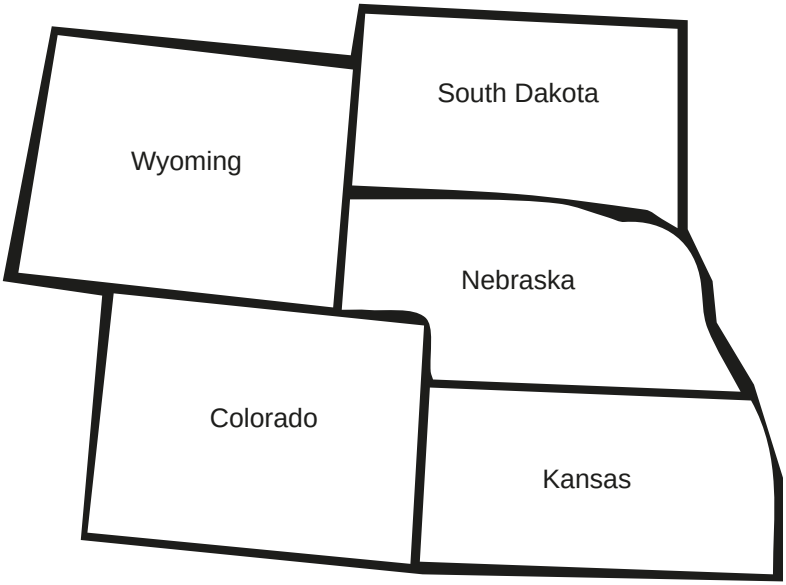
Rocky Mountain Area Interagency Mobilization Guide



2016

2016

ROCKY MOUNTAIN AREA INTERAGENCY MOBILIZATION GUIDE

TO: Rocky Mountain Area Agencies and All Mob Guide Users

FROM: Rocky Mountain Coordinating Group (RMCG)

Attached is the 2016 Rocky Mountain Area Interagency Mobilization Guide. This guide has been written to reflect the interagency needs and procedures of the Rocky Mountain Area.

APPROVED BY: _____ DATE: 05 MAY 2016

Rocco Snart
Chair, RMCG

PREFACE

The Rocky Mountain Area Mobilization Guide (RMG) identifies established standards and procedures, which guide the operations of the Rocky Mountain Area (RMA) multi-agency logistical fire dispatch and coordination activities. The guide is a supplement to the National Interagency Mobilization Guide (NMG) and is designed for amendments as needed, and shall be retained as currently applicable until amended. Dispatch Centers shall supplement the RMG as necessary.

Please review each chapter of the RMG carefully and submit any recommendations, changes and updates to the guide using the following online submission form: http://goo.gl/forms/MnOMSZx007. Submissions may be made at any time during the year, however the timetable below will be followed.

Date Due	Process	Responsibility
November 1st	Comment period for RMG changes ends.	Field, Dispatch Centers, IMTs, RMCG committees
RMCG must approve any changes to policy. • Operations Committee reviews all content of operational concern. • Dispatch Committee reviews all content. • Predictive Services reviews all content pertinent to their expertise (Ch.10,60) • RMK Cache Manager (Ch.40) • Aviation Committee (Ch.50)		
November 15th	All comments forwarded to respective RMCG committees for review	RMACC
February 15th	Final changes submitted to RMCG	RMCG Committees
March 1st	RMCG approves changes and sends to RMACC for final editing	RMCG
March 15th	Final RMA Mob Guide sent to printing and available for electronic distribution	RMACC

If you have any questions or comments, please contact the Rocky Mountain Area Interagency Coordination Center (RMACC).

INDICATES CHANGE IN TEXT

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CHAPTER 10

Chapter 10
Objectives, Policy, and Scope of Operation

Mission Statement

The principal mission of the Rocky Mountain Area Coordination Center (RMACC) is to provide safe, cost effective, and timely response of national and area resources for all aspects of wildland fire management activities and other emergency management activities within the Rocky Mountain Area (RMA). The RMACC's coordination effort will also be in cooperation with the National Interagency Coordination Center (NICC). This mission shall be accomplished through extensive planning, situation analysis, needs projection, and activation of emergency resources through interagency cooperation.

The RMA is comprised of land bounded within the states of Colorado, Kansas, Nebraska, South Dakota, and Wyoming. Several RMA units also cross over into North Dakota, Montana and New Mexico.

The cooperating protection entities include:

- Bureau of Indian Affairs (Southwest, Rocky Mountain, and Great Plains Regions)
- Bureau of Land Management (Colorado, Wyoming, and South Dakota)
- Fish and Wildlife Service (Mountain/Prairie Region)
- Forest Service (Rocky Mountain Region)
- National Park Service (Intermountain and Midwest Regions)
- States include Colorado, Kansas, Nebraska, South Dakota, and Wyoming
- Local Agency Cooperators

The Rocky Mountain Area Mobilization Guide (RMG) identifies policy and agreements that establish standard procedures that guide the operations of multi-agency/jurisdictional logistical support activities. The guide is an extension of Agency Manuals, Handbooks, Directives, and Instructional Memorandums relating to logistical support. The guide is intended to promote uniformity of logistical support communications, facilitate interagency dispatch coordination, and ensure that the most timely and cost effective support services are provided. It is designed to accommodate amendments and will be recognized as currently applicable until amended. Dispatch centers should supplement the RMG with site specific information and provide the RMACC with a current copy of their guide by May 15 of each year.

Agency Administrators must approve any changes to Chapter 10 Policy.

The Rocky Mountain Coordinating Group (RMCG) is responsible for review and approval of the RMG.

The RMACC is responsible for the coordination of the review and editing of the annual update of the RMG. A final draft will be submitted to the RMCG for approval upon which the guide will be published and implemented. See RMG Preface.

Please reference the most current NWCG Glossary of Wildland Fire Terminology.

Total Mobility

Total mobility will be accomplished by the positioning and utilization of resources to meet anticipated and existing incident, preparedness, severity, wildland fire needs, regardless of geographic location or agency affiliation. The closest forces concept will be utilized during initial attack, and when appropriate during extended attack.

Initial Attack Definition:

Initial Attack (IA) is defined as the first response of suppression forces dispatched to wildfires under established and planned direction. The forces are normally sufficient in achieving the appropriate management response without the need for major reinforcements in a reasonable period of time.

Closest Forces Definition:

The closest available appropriate resources regardless of ownership shall be utilized. The emphasis to get the closest appropriate resources to respond to initial attack fires is in the best interest of all agencies. This concept should be used for planning without regard to direct protection responsibility. Use of closest forces will also be applied to ongoing incidents whenever there is a critical and immediate need for the protection of life and property. Beyond initial attack, the closest forces concept is modified and the protecting agency will use the most appropriate resources. (*2015 Colorado Statewide Wildland Fire Management Annual Operating Plan*).

Priorities

When competition exists for wildland fire resources, at Preparedness Levels 1, 2 and 3, the RMA Tactical Group, in conjunction with the RMCG Fire Duty Officer and the RMACC Center Manager, shall establish priorities for incident and resource allocation. The RMA Multi-Agency Coordinating Group (MAC) establishes priorities during Preparedness Levels 4-5. Priorities shall be established through use of national standards.

At Preparedness Level 3 and above, the RMA incident prioritization process and matrix should be used (see the RMA MAC plan at http://rmacc.info/rm_mac_group.php). When requested, a priority list shall be submitted to the RMACC by Dispatch Center MACs and/or Center Managers.

The single overriding suppression priority is the protection of human life – both that of our firefighters and of the public.

In setting priorities, the following criteria should be considered:

1. Protection of human life - both that of our firefighters and of the public.
2. Protecting communities and community infrastructure, other property and improvements, and natural and cultural resources.
3. Maintaining initial action capability.
4. Limiting costs without compromising safety.
5. Meeting agency suppression objectives.
6. Support to National Response Framework (NRF) taskings.

Local and Geographic Area Drawdown Levels and National Ready Reserve
(Refer to NMG 10)

Scope of Operation
National Response Framework (NRF)
(Refer to NMG 10)

Office of Foreign Disaster Assistance (OFDA)
(Refer to NMG 10)

Response to Incidents Other Than Wildland Fires
The RMACC is capable of supporting non-fire incidents provided there are Agreements or Memorandums of Understanding (MOU) in place that identify payment procedures.

The RMACC shall be the contact and coordination point for support to the National Federal Response Plan (Public Law 93-288, as amended). This plan is designed to address the consequences of any disaster or emergency situation in which there is a need for federal response assistance under the authority of the Stafford Act. The plan applies to natural disasters such as earthquakes, hurricanes, typhoons, tornadoes, floods, and volcanic eruptions; technological emergencies involving radiological or hazardous material releases; and other incidents requiring Federal disaster assistance. The plan describes the basic mechanisms and structures by which the Federal government will mobilize resources and conduct operations in order to augment state and local response efforts.

RMA Cooperating Agencies will normally function in a support role in a coordinated response to non-wildfire emergencies. An agency may take the lead role for purposes of expediency in life-threatening situations or when non-Government Emergency Service Programs are not capable of providing support. Specific agency policies and administrators will provide direction in determining the availability of resources in conjunction with existing programs in order to support and coordinate with local authorities. Ensure that appropriate agreements are in place before taking action.

Responsibilities of the RMA Wildland Fire Agencies
(In concert with agency manuals and directives)
RMA Wildland Fire Agencies shall be responsible for:

- All fire activity within their respective protection boundaries including initial attack and project support.
- Interagency agreements to facilitate a cost effective and responsive emergency management program, and the development of mobilization guides, operating plans, aviation plans, and safety plans.
- Preparedness in order to meet daily-anticipated fire suppression requirements.
- Pursuing severity funding and in accordance with internal agency policy.
- Ensuring adequate and timely staffing of all incidents through the Interagency Dispatch System. This includes overhead team requirements (complexity analysis) and Expanded Dispatch Organization.

- Maintaining all equipment and supplies to Agency and National Fire Equipment Standards.
- Assessing and performing risk/benefit analysis prior to requesting extensive night mobilization.
- Ensuring that all resources meet qualification standards for mobilization.
- Adequately informing the RMACC of all intelligence regarding resources, weather, and incident information. This includes anticipated critical fire situations or fire activity that may exhaust unit response capabilities.
- Complete and accurate documentation in support of emergency activities and legal requirements.
- Administrative details including training, contracting, discipline, housing, timekeeping, equipment, supplies, and any project work for shared resources based on the unit.
- Determining needs for pre-positioning of forces or deviations from approved and published staffing levels, and taking appropriate action. (This includes obtaining severity authorization approval and initiating resource order requests through appropriate dispatch channels.)
- The active support of incidents by making qualified personnel available for wildland fire activities.
- Providing the training and support to wildland fire personnel to ensure safe, efficient, and effective incident activities.
- Providing a RMCG Fire Duty Officer for each agency as needed.
- Providing a RMA Tactical Group Fire Operations Officer for each agency as needed.
- Ensure representation on the RMA Tactical Group call.

Responsibilities of the RMCG Fire Duty Officer

The RMCG Fire Duty Officer shall assume the following responsibilities unless a MAC is in place, at which time the MAC Coordinator may be delegated these responsibilities.

- Serves as liaison between the RMCG and the RMACC Center Manager.
- Provides general oversight and support to the RMACC Center Manager.
- Serves as a point of contact for the RMACC Center Manager, RMA Tactical Group, National MAC Group (NMAC), agency administrators, and others, as circumstances dictate.
- Coordinates with the RMACC Center Manager as needed for problem solving and decision support.
- Serves as a liaison (or ensures a liaison from the RMA Tactical Group is provided) for IMTs assigned in the RMA. Liaison responsibilities include:
    - Ensures geographic area in-briefing occurs for non-RMA teams;
    - Facilitates IMT Site Visit and completion of Incident Management Review Report;
    - Ensures coordination between GACCs and respective Coordinating Group(s) when applicable.
- Determines the escalation and/or de-escalation of RMA preparedness levels 1, 2, and 3 based on recommendations of the RMA Tactical Group and RMACC Center Manager.

- Using recommendations from the RMA Tactical Group and RMACC Center Manager, determines the escalation from RMA preparedness level 3 to preparedness level 4 and the activation of the RMA MAC group.
- Participates on all the RMA IC and Tactical Group meetings or calls.
- In coordination with RMACC Manager, ensure RMCG members are provided with daily synopsis of events when any or all of the following criteria exist:
    - Local or regional large fire activity;
    - Elevated initial attack requires cooperative movement of resources;
    - Out-of-GACC resource mobilization elevates and affects local IA capacity;
    - Aviation resources require strategic movement;
    - Incidents with potential, near-misses, serious accidents, etc.;
    - Raising and/or lowering of PL.
- At the end of each rotation, the current Duty Officer will brief the incoming Duty Officer.

Responsibilities of the RMA Tactical Group

The RMA Tactical Group consists of Agency Fire Operations Specialists/Agency Duty Officers from the RMCG member agencies, the RMACC Center Manager and the RMCG Fire Duty Officer.

The purpose of the RMA Tactical Group is to determine the need for movement of resources for preparedness, severity, and wildfires within the geographic area.

The tactical call will be scheduled as activity dictates and facilitated by the RMACC Center Manager and documented on the tactical call form. The Tactical Group will identify a RMA Fire Operations Officer to act for the RMA Tactical Group outside of scheduled tactical calls.

At all RMA Preparedness Levels (1 through 5), the RMA Tactical Group will:

- Determine the need to preposition suppression resources at the most strategic locations and initiate their movement through the use of the resource order process in coordination with RMACC Center Manager and the RMCG Fire Duty Officer.
- Adequately inform participants and agency fire leadership of all intelligence regarding resources, weather, and incident information. This includes anticipated critical fire situations or fire activity that may require additional resources.
- Provide recommendations to RMCG Fire Duty Officer or RMA MAC group on preparedness levels, preparedness level action items, drawdown levels, staffing, and other RMA needs.
- Ensure that at RMA PL 3, the incident prioritization and resource allocation matrix process is used on all RMA large fires which require resources from outside of the local area.
- Provide a daily Tactical Group report-out when the RMA MAC group is activated.

Responsibilities of the RMA Tactical Group Fire Operations Officer

- Assumes the responsibilities listed above for the RMA Tactical Group when the RMA Tactical Group is not in session,
- If requested, serves as a liaison to the RMA IMTs and reports to the RMCG Fire Duty Officer, and the RMACC Center Manager (or acting).
- Be the conduit and support for the RMA Incident Commanders when RMA IMTs are on assignment in addressing issues & concerns and assisting with problem resolution.
- Be the point of contact for the RMCG Fire Duty Officer in matters concerning the RMA IMTs.
- At the end of each rotation, the current Fire Operations Officer will brief the incoming Fire Operations Officer.

The RMA Tactical Group Fire Operations Officer will rotate on a weekly basis from March 1st through October 31st. From November 1st through March 31st, it will be filled by the RMCG Operations Committee Chair (or acting). The rotation period will be off-set from the RMCG Fire Duty Officer rotation period. Each member agency will provide a RMA Fire Operations Officer as needed.

The RMA Tactical Group Fire Operations Officer may be from the Operations Committee, the Tactical group, a RMCG member or other delegated Agency representative.

Responsibilities of the RMACC

The RMACC shall serve as the Area Coordination Center to provide logistical support to dispatch centers in the RMA. The RMACC will coordinate movement of all support resources across jurisdictional boundaries within the RMA.

The RMACC Center Manager has delegated authority from the RMCG and will use the RMG as well as any other agency and interagency guides to establish policies and procedures for the mobilization of personnel, equipment, supplies and aircraft for incident emergencies and preparedness in the RMA and out of area assignments. This delegated authority (or parts of) may be assigned to a designated "acting" center manager, to the RMACC Deputy Center Manager, or to the RMACC Coordinator-On-Duty, as needed.

The RMACC Center Manager shall:

- Provide a focal point for information concerning overall incident situations within the RMA including but not limited to, fire danger, current or projected activity, and resource status.
- Determine the amount and location of available overhead, crews, equipment, aircraft, supplies, and transportation. Anticipate and communicate initial and long-term needs and priorities for sharing available resources.
- Coordinate the movement of resources for emergencies, preparedness, severity, prepositioning, wildland fire needs from one geographic location to another.
- Coordinate with the RMA Tactical Group (and the Fire Operations Officer), the RMCG Fire Duty Officer and/or the RMA MAC Coordinator to determine priorities

for resources in multiple fire situations. (Refer to responsibilities of the RMA Tactical Group and RMCG Fire Duty Officer below)

- Coordinate rosters, schedules, and mobilization of RMA and national resources (i.e., Type 1 and 2 Incident Management Teams (IMTs), Buying Teams, Crews, etc).
- Keep agency administrators, RMCG members, Tactical Group members, State and/or Regional FMOs, and NICC informed of existing and projected critical fire situations.
- Determine the need to preposition suppression resources at the most strategic locations and initiate their movement through the use of the resource order process in conjunction with the RMA Tactical Group and the RMCG Duty Officer.
- Monitor dispatch organizations for compliance in meeting acceptable dispatch standards.
- Participate in active analysis of fire, coordination, and dispatch activities.
- Serve as information and technical advisor to RMCG at their meetings.
- Serves as or provides an information and technical advisor to RMA Operations and Aviation Committees at their meetings.
- Prior to fire season, initiate RMCG recommended changes in policies, procedures, and Cooperative Agreements that affect RMA operations.
- Provide leadership and support in training programs to facilitate current dispatch and coordination needs.
- Facilitate the RMA Tactical Group meetings and conference calls as needed.

Mobilization

(Refer to NMG 10)

To ensure safe and efficient mobilization of resources to incidents, resources are requested and mobilized using the Resource Ordering and Status System (ROSS). Orders for resources shall be initiated/generated by the unit responsible for the incidents. Orders shall be processed through established dispatch channels. Standard interagency mobilization processes are identified within the Interagency Standards for the ROSS Operations Guide (ISROG).

A dispatch center plans and executes a safe, rapid mobilization/demobilization program to minimize fire costs, commensurate with values at risk, and consistent with all agencies' resource management objectives. When a dispatch center has depleted jurisdictional and mutual aid resources, requests for assistance shall be placed first with their "neighbors" and second with the RMACC. The coordination center shall, through established dispatch channels, locate and order the closest available resource that will meet the requesting unit's needs. Consideration shall be given to more distant resources to avoid excessive commitments from units with similar or more critical fire severity.

The following mobilization hierarchy will be honored:

1. Agency*
2. AD/EFF/Supplemental Resources**
3. Contractors

*An Agency is a division of government with a specific function, or a non-governmental organization that offers a particular kind of assistance. In ICS, agencies are defined as jurisdictional (having statutory responsibility for incident mitigation), or assisting and/or cooperating (providing resources and/or assistance). Agencies include but are not limited to: Federal, State, County, and Local agencies.

**Supplemental Resources constitute overhead personnel tied to a local fire department/agency (generally by agreement) who are mobilized primarily for response to incidents/wildland fires outside of the department/agency's district or mutual aid zone. They are not a permanent part of the local fire organization and are not required to attend scheduled training, meetings, etc. of the department staff.

Units responding to RMA requests are responsible for ensuring the resources dispatched meet the criteria specified in the RMG and/or the National Wildfire Coordinating Group (NWCG) Qualification and Certification Handbook (PMS 310-1).

Dispatching of National and/or RMA initial attack resources within and across the defined RMA boundaries shall comply with the following:

- RMA units and dispatch centers have the authority to utilize the resources of adjoining units and centers within the RMA. An official resource request should be processed.
- RMA units and dispatch centers have the authority to utilize the Initial Attack resources of adjoining units and centers across adjacent geographic area boundaries.
- Mobilization will be within the legal authority of existing formalized parent agreements. However, cooperating units and centers must specifically identify operating procedures in local operating plans.
- Initial attack aircraft such as air tankers, helicopters, lead planes, smokejumper aircraft, etc., are considered resources that can be dispatched and arrive on scene within one hour of IA request.
- Initial attack ground resources are considered resources that can be dispatched and arrive on scene within three hours of IA request.
- Dispatch centers must make notification of National and RMA resource commitment as outlined in RMG 10.
- At such time as it becomes evident that the incident will not be contained or controlled during IA, the initial attack resources shall be formally requested on resource order(s) through established dispatch channels.

Work/Rest, Length of Assignment, and Days Off

(Refer to NMG 10, Interagency Incident Business Management Handbook (IIBMH))

Incident Operations Driving

As stated in the current agency work/rest policy, documentation of mitigation measures used to reduce fatigue is required for drivers who exceed 16 hour work shifts. This is required regardless of whether the driver was still compliant with the 10 hour individual (behind the wheel) driving time limitations.
(Refer to the IIBMH Ch. 10 Regional Supplement for further information)

All resources must be authorized on their resource order to respond with a vehicle (agency owned vehicle (AOV), personal owned vehicle (POV) or rental). If a rental vehicle other than a compact is authorized, it must be documented within the special needs of the resource order. ALL authorized off-road rental vehicles for use in the RMA must be ordered from the USFS R2 Rental Vehicle BPA. In addition, any resource who has been authorized to take a POV MUST complete a cost comparison. See the RMACC web page (http://rmacc.info) for additional details regarding vehicles.

Employees must have a valid state driver's license in their possession for the appropriate vehicle class before operating the vehicle.

For non-commercial driving license (CDL) driving, current national interagency work-rest policy serves as duty-day limitation and driver rest requirements. Duty day will not exceed 16 hours for non-CDL drivers.

All driving requiring CDL will be performed in accordance with applicable Department of Transportation (DOT) regulations found in 49 CFR 383, 390-397, and all state traffic regulations. (No driver of a vehicle requiring a CDL will drive the vehicle after 16 hours on duty during any duty-day.)

Exceptions: An additional two hours of driving time may be added if: a driver encounters adverse driving conditions, unforeseen emergency situations (breakdown), or to ensure the safety of personnel.
Reference the IIBMH.

CFR Title 49 Subtitle B, Chapter III, Subchapter B, Part 383, subpart A, Section 383.3 states: "d) Exception for farmers, firefighters, emergency response vehicle drivers, and drivers removing snow and ice. A State may, at its discretion, exempt individuals identified in paragraphs (d)(1), (d)(2), and (d)(3) of this section from the requirements of this part. The use of this waiver is limited to the driver's home State unless there is a reciprocity agreement with adjoining States."

Emergency response vehicle (e.g., Fire Engine) drivers may be required to possess a CDL if operating a vehicle over 26,001 pounds or more, when they leave their home state.

Drivers are responsible to follow these policies and it is the supervisor's responsibility to ensure that employees adhere to the proper driving limitations and monitor employee fatigue.

Wildland Fire Entrapment/Fatality
(Refer to NMG 10)

Entrapment: A situation where personnel are unexpectedly caught in a fire behavior-related, life threatening position where planned escape routes or safety zones are absent, inadequate, or have been compromised. An entrapment may or may not include deployment of a fire shelter. This situation may or may not result in injury. In the event that a wildland fire entrapment or fatality occurs, it should be reported immediately to NICC. A Wildland Fire Entrapment/Fatality Initial Report should be completed and mailed to the RMACC and the NICC electronically or by facsimile within 24 hours. Submit this report even if some data is missing. Subsequent to the initial report, the investigation and review shall be conducted following agency specific policies and NWCG guidelines.

National Resources
(Refer to NMG 10)

RMA Resources
RMA resources are those fire suppression resources whose primary duties are for the RMA support of fire incidents. Some resources may not be able to cross state lines.

Teams:
Type 2 IMTs
Geographic Area Buying Teams (BUYTs)

Aircraft:
Type 3 Exclusive Use Helicopters
Exclusive Use SEATS
Air Attack/Recon/IR platforms

Crews:
Type 2 Crews
Type 2 IA Crews

Overhead:
Wildland Fire Modules (WFM)

Supply:
Cache Vans

Notification of Commitment of National & RMA Resources
(Refer to NMG 10)
Notification by phone to the RMACC of commitment of National and RMA resources will be within 15 minutes of commitment.

Notifications will be done when the following circumstances occur:

- When National, RMA resources or resources who are prepositioned on a RMA GACC Preposition incident are committed internally to an incident or are no longer available for dispatch.
- When resource is available again.
- When resource location changes.
- When 50% of the smokejumpers at home bases are dispatched.

The RMA Resource Status information will be updated by each center for National and RMA resources physically located within their area of influence on a daily basis.

Unable To Fill (UTF) Procedure

(Refer to NMG 10)

A 48-hour "unable to fill" policy exists nationally. The RMACC will return requests to the ordering dispatch center with a "UTF" 48 hours after receipt unless notified that the order can be filled.

Standard Cubes, Weight, and Gear Policy Excluding Smokejumpers, Rappellers, and Helicopter Managers

(Refer to NMG 10)

All personnel dispatched off their unit must conform to the following limitations:

- One frameless, soft pack not to exceed 45 pounds.
- Web gear or briefcase (not both) not to exceed 20 pounds.
- Maximum allowable crew weight, including equipment, is **5,300** pounds.

Air Transport Reminders:

All personnel baggage weights must be displayed separately from individual weights on flight manifests. This is due to aircraft weight balance requirements that will be adhered to when planning for mobilization/demobilization. Reminder to ensure all flammables and knives are removed from gear/luggage.

Pre-identified Type 1 and Type 2 IMT members are authorized additional weight not to exceed 300 pounds of equipment per team. The IC must designate in advance which team members are authorized additional weight and make this a matter of record.

For incidents within the RMA, the following exceptions on maximum weight limitations have been approved. Type 1/Type 2 overhead IMT members will be allowed the addition of a carry case with a lap top computer not to exceed 10 additional lbs.

All personnel will adhere to weight limitations. Items that exceed weights will be shipped home at individual's expense. All personnel must also consider cube limitations.

General Demobilization Guidelines

Demobilization plans prepared and approved by Area Command and IMT, or the local unit will be distributed to affected Unit or Expanded Dispatch and to the RMACC at least 24 hours prior to any releases. Reassignment potential will be addressed in this plan.

Hold all resources at the base or staging area until travel arrangements can be made or cleared by the logistics dispatch system. Group crews and overhead for common destinations as much as possible to minimize transportation costs. Place grouped resources on same shifts 24 hours prior to intended release. Ensure crews are properly equipped with meals for the duration of their travel home, or arrangements have been made prior to travel. Attempt to assure that personnel shall arrive at their home station by 2200 home station time.

Incident/Unit Dispatchers

Assist IMT in demobilization planning. The demobilization plan that includes a list of resources available for reassignment will be distributed to Unit and Dispatch Centers and to the RMACC, 24 hours prior to any releases. Assure that Unit and RMA priorities for release are met. Keep Dispatch Centers informed of demobilization plans, progress, and changes. Center Managers or EDSPs should sign off on demobilization plans. Assure that RMA and Unit priorities for release are met. Arrange staging and transportation as necessary. Arrange to have service representatives at departure/arrival points to keep the dispatcher informed of problems and progress (i.e., Fixed Wing Base Manager (FWBM), etc.). Make sure resource orders are kept current for all releases.

Dispatch Center Dispatcher

Determine dispatch center priorities for release and relay to incident unit and RMACC. Assure that Unit and RMA priorities for release are met.
Relay demobilization plans to RMACC. Keep RMACC and Dispatch Center's home units informed of demobilization process.
Arrange for transportation and staging as necessary.

RMACC

Priorities for the demobilization of resources will be made in conjunction with either the local or geographic area MAC group if activated. If Area Command is in place, priorities will be coordinated between the Area Commander and MAC. These priorities will then be transmitted to the Dispatch Centers and/or Expanded Dispatch.
Resources available for reassignment will be forwarded to the NICC and other dispatch centers. Transportation will only be arranged as necessary and requested through the normal dispatch procedures.

Home or Support Unit Dispatchers

Arrange for 24-hour communication, if necessary. Schedule transportation as required.
Arrange to have service representatives at departure/arrival points to keep the dispatcher informed of progress. Order Administrative Payment Team (APT) if necessary.
Notify Dispatch Center and/or the RMACC, through established dispatch channels, if resources do not arrive at home within a reasonable time of their scheduled arrival.

Release Priority Guidelines

The following incident release priorities will generally apply, unless notified of change by the RMACC.

1. Local initial attack
2. National and regional shared resources
3. Out of geographic area resources
4. Out of Zone RMA agency and cooperator resources*
5. RMA agreement/call-when-needed resources*
6. Type 2 crews/contract resources*

*Depending on the current and predicted level of activity, the RMACC may advise the incident/host dispatch of changes to the above priorities. There are times when out-of-area and call-when-needed resources may be released first when predicted future needs are minimal.

Wildland Fire Weather Forecasts

(Refer to NMG 10)

All Fire Weather forecasts will be disseminated to all firefighting personnel. The RMA has National Weather Service (NWS) offices that provide Fire Weather Forecasts in Denver, Grand Junction, and Pueblo, CO; Cheyenne and Riverton, WY; Aberdeen, Rapid City, and Sioux Falls, SD; Billings, MT; Hastings, North Platte, and Omaha, NE; Springfield, MO; Dodge City, Goodland, Kansas City, Topeka, and Wichita, KS. Each office issues annual operating guides which provide details about Fire Weather zones, operation dates, times, and terminology. Contact the RMACC or the NWS office for a current copy. The operations plan is maintained at the RMACC website.

Fire Cost Coding

(Refer to NMG 10)

Fire Codes are issued through the Fire Code System computer program (www.firecode.gov). Please reference the Fire Code Chart Matrix for specific RMA agency guidance, found on the RMACC website at http://rmacc.info.

Fire Cost Coding - Agencies

(Refer to NMG 10)

Geographic Financial Charge Codes

(Refer to NMG 10)

Within the RMA there is one geographic financial charge code that can be utilized to assist with in-area mobilization, prepositioning and support of interagency resources. The RMACC Center Manager has been delegated responsibility to assign, utilize and monitor this charge code and will work in conjunction with the RMA Tactical Group, the RMCG Fire Duty Officer, and agency business leads in determining the appropriateness of using this charge code.

Preseason Preparedness
Preseason Preparedness is essential to ensure readiness and availability of resources.

Unit fire readiness inspections will be scheduled by interagency operational personnel. Review will be done in accordance with agency requirements. (As applicable, utilize the Interagency Readiness Review Guide or specific agency guidelines.)

RMA Preparedness Levels (PL)
The RMCG establishes preparedness levels based on current and forecast burning conditions, fire activity and resource availability.

Resource availability is the area of most concern. Situations and activities described within the preparedness levels consider both wildfire and prescribed fire.

Why Preparedness Levels Are Established
Purpose:

- To identify the level of wildland fire management activities, severity and resource commitment within the RMA.
- To identify predetermined actions to be taken by the RMACC and the RMA MAC to ensure an appropriate preparedness/readiness and resource availability for the existing and potential situation.
- To modify area-wide fire management activities when essential to ensure appropriate level or response to RMA and National resource demands.

Preparedness Level Determination Procedures
This plan should be used to guide the setting of the overall preparedness level for the RMA.

Using the considerations and criteria as described below, the RMA Tactical Group and RMACC Center Manager will make recommendations to the RMCG Fire Duty Officer who will determine the escalation or de-escalation of PL 1, 2 and 3. The RMCG Fire Duty Officer is also responsible for determining the escalation from PL 3 to PL 4 and activation of the RMA MAC Group.

Using the considerations and criteria as described below, the RMA MAC Group will determine the escalation from PL 4 to PL 5 and the de-escalation from PL 5 to 4 and from PL 4 to PL 3.

Preparedness levels are basically determined by:

1. Condition of the fuels and their resultant burning characteristics will be gathered from, but not limited to:
    a. Remote Automated Weather Station (RAWS) / National Fire Danger Rating System (NFDRS) observations and fire danger reporting from field units.
    b. RMA Predictive Services
    c. National Fuel Moisture Database

d. Fire Management Officers/Dispatch Centers
e. Fuels Specialist
f. FBANs
g. IC calls
h. RMA Tactical Group

2. Existing and forecast significant fire potential, weather patterns.
   a. Current and Forecasted Predictive Services 7-Day Significant Fire Potential Outlook.
      i. 7-Day Significant Fire Potential Outlook: A 7-day outlook of significant fire potential for each of the 65 RMA Predictive Service Areas (PSAs) which integrates fuels and weather information into classifications related directly to the potential for significant fire activity. The table below relates historical fire occurrence and probabilities for significant fire activity to the outlook classifications.
      ii. The following PSAs typically experience higher NFDRS fire danger and indices during the RMA fire season. Consideration to fire potential and resource needs for these areas will be made when evaluating RMA preparedness levels but should not be used exclusively in determining a RMA PL: Colorado PSA 24, Kansas PSAs 70-77, Nebraska PSAs 62, 65, 67, 68, and South Dakota PSAs 54 and 57.

Fire Potential Color Classification	Significant Fire Risk Description	Historical Significant Fires in Color Class
Green (Moist)	**Little or None**	**~10% or less**
Yellow (Dry)	**Low**	**~10-30%**
Brown (Very Dry) **Red (High Risk- Dry or Very Dry in conjunction with Special Fire Weather Events)**	**Moderate to High**	**~31%-60%**

   b. Current and forecast weather patterns that may exacerbate fire potential.
3. All current and anticipated wildland fire activity both within and outside of the RMA
4. Resource availability, within and outside the RMA.

RMA Considerations for Escalation or De-Escalation of Preparedness Levels

The intent of the following considerations are to support decision making concerning the setting of the preparedness levels. The descriptors used are for the purpose of guiding managers in conjunction with their fire experience and knowledge in the decision to determine each planning level. It is not intended as a checklist that determines the planning level but instead a guide. Consideration must be given by managers in order to promote a smooth transition for the increase or reduction in preparedness levels. Preparedness levels may also be driven by national competition for resources while maintaining coverage within the RMA.

Escalation of Preparedness Levels

Preparedness Level 1

Description - Conditions are not conducive for frequent large fire growth in most of the RMA. Winter or rain conditions or green fuel conditions predominate. Normal fire resource staffing is adequate.

All of the following will be considered for the RMA to be at PL 1:

- No more than 12 RMA Field Units are reporting NFDRS fire danger adjective of high or above, utilizing the RMA situation reporting system. Dispatch zone planning levels will be considered.
- Most RMA SIG ERC values are below the 75% percentile
- RMA "7-Day Significant Fire Potential Outlook" indicates a maximum of 3 PSAs at consistently moderate (brown) or high (red) risk for significant fire activity.
- Fire activity within the RMA is minimal (IA-0 to 10 fires). Large fires or multiple objective fires may occur but are of short duration and low complexity.
- There is little to no commitment of RMA and/or national resources within the RMA.
- RMA support to the national mobilization effort has little to no impact on RMA initial attack capacity

Preparedness Level 2

Description - Resources within most local dispatch areas are adequate. Potential exists for some mobilization of additional resources from other local dispatch areas. RMA support to the national mobilization effort does not impact initial attack capacity within the RMA.

For the RMA to be at PL 2, the following will be considered:

- No more than 12 to 20 RMA Field Units are reporting NFDRS fire danger adjective of high or above, utilizing the RMA situation reporting system. Dispatch zone planning levels will be considered. Fire danger is expected to remain the same or increase over the next 7 days.
- Most RMA SIG ERC values are below the 75% percentile but NFDRS curves indicate an increasing trend from the previous analysis, and this trend is expected to continue over the next 7 days.
- RMA "7-Day Significant Fire Potential Outlook" indicates a maximum of 3-5 PSAs at consistently moderate (brown) or high (red) risk for significant fire activity. The outlook indicates continued drying and or no improvement in dryness levels for the next 7-days.
- Fire activity within the RMA is light (IA-11 to 25 fires). Light IA is expected to continue. Large fires are of short duration and this trend is expected to continue. The number of multiple objective fires is 3 or less and has little to no impact on resource drawdown.
- There is minimal to moderate commitment of RMA and/or national resources within the RMA.
- RMA support to the national mobilization effort has minimal impact on RMA initial attack capacity

Preparedness Level 3

Description - Resources within multiple local dispatch areas are short, requiring frequent mobilization of additional RMA and national resources. Large fires occurring frequently and potential for IMT mobilization is regularly present. Fire behavior is escalating and of concern to multiple agencies and fire managers.

For the RMA to be at PL 3, the following will be considered:

- 20 to 30 RMA Field Units are reporting NFDRS fire danger adjective of high or above, utilizing the RMA situation reporting system. Dispatch zone planning levels will be considered. Fire danger is expected to remain the same or increase over the next 7 days.
- RMA ERC values are between the 75th and 85th percentile and NFDRS curves continue to show an increasing trend from the previous analysis, and this trend is expected to continue upward over the next 7 days.
- RMA "7-Day Significant Fire Potential Outlook" indicates a maximum of 6-10 PSAs at consistently moderate (brown) or high (red) risk for significant fire activity. The outlook indicates continued drying, and or no improvement in significant fire potential for the next 7-days.
- There are three or more type 3 incidents, and/or one type 1 or type 2 IMT commitment. There's the potential for existing team fires, or new large (significant) fires to burn beyond 72 hours. Greater than 3 multiple objective fires currently exist, with some mobilization of resources (duration and complexity evaluated).
- There is potential for two dispatch zones to experience incidents requiring a major commitment of area/national resources. Numerous additional resources are being ordered through RMACC; competition for resources exists between local area dispatch centers.
- Increasing support to the national mobilization effort may impact the ability of RMA dispatch zones to provide successful initial and/or extended attack response.

Preparedness Level 4

Description - Resources are fully and frequently being mobilized in some areas; initial attack may be unsuccessful on a daily basis. Aviation resources are critical to success. Some dispatch areas are extremely busy and IMT fires occurring regularly. Resources have to be actively managed and agencies consulted regularly. Large fire behavior is high or extreme; threats to life and property are high, as is agency and fire manager concern.

For the RMA to be at PL 4, the following will be considered:

- 30 plus RMA Field Units are reporting NFDRS fire danger adjective of high or above, utilizing the RMA situation reporting system. Dispatch zone planning levels will be considered. Fire danger is expected to remain the same or increase over the next 7 days.
- RMA ERC values are at the 90th percentile and NFDRS curves continue to show an increasing trend from the previous analysis, and this trend is expected to continue upward over the next 7 days.
- RMA "7-Day Significant Fire Potential Outlook" indicates a maximum of 11-16 PSAs at consistently moderate (brown) or high (red) risk for significant fire activity. The outlook indicates continued drying, and or no improvement in significant fire potential for the next 7 days.
- There are multiple type 3 incidents, and/or 2-3 type 1 or type 2 IMT commitment. There's the potential for existing team fires, or new large (significant) fires to burn beyond 72 hours. Area command team may be in place.
- There is potential for 3-4 dispatch zones to experience incidents requiring a major commitment of area/national resources. The potential exists to utilize all available area and national resources located in the RMA, and to significantly impact national resources in other geographic areas.
- Support to the national mobilization effort may be causing competition for firefighting resources within the RMA.

Preparedness Level 5

Description - Fire resources throughout the RMA are almost fully committed. Higher level of initial attack is unsuccessful. Use of aviation resources is essential for initial attack and large fire support. Numerous dispatch areas are at full operational level. Almost all or all of the Rocky Mountain Area IMTs are in use. Large fire behavior is high or extreme; threats to life and property are multiple and complex. Agency and fire manager concern is consuming.

For the RMA to be at PL 5, the following will be considered:

- 30 plus RMA Field Units are reporting NFDRS fire danger adjective of high or above, utilizing the RMA situation reporting system. Dispatch zone planning levels will be considered. Fire danger is expected to remain the same or increase over the next 7 days.
- RMA ERC values are above the 90th percentile or are setting historic high values. NFDRS curves continue to show an increasing trend from the previous analysis, and this trend is expected to continue upward over the next 7 days.
- RMA "7-Day Significant Fire Potential Outlook" has greater than 16 PSAs consistently moderate (brown) or high (red) risk for significant fire activity. The outlook indicates continued drying, and or no improvement in significant fire potential for the next 7 days.
- There are several type 3 incidents, and or 4 or more type 1 or type 2 IMT commitments within the RMA. There's the potential for existing team fires, or new large (significant) fires to burn beyond 72 hours. Area command team may be in place.
- There is potential for 5 or more dispatch zones to experience incidents requiring a major commitment of area/national resources. The potential exists to utilize all available area and national resources located in the RMA, and to significantly impact national resources in other geographic areas.
- Support to the national mobilization effort may be causing competition for firefighting resources within the RMA.

RMA De-Escalation of Preparedness Levels Considerations

Preparedness Level 5 to 4

- The fire situation and conditions meet the description of PL 4 and,
- The 3-5 day weather outlook is favorable for reduction in planning level
- Long term weather outlooks favor moderating conditions,
- Competition for resources has significantly decreased from what it had been when PL 5 was declared,
- Support to the national mobilization effort is causing less competition for resources.

Preparedness Level 4 to 3

- The fire situation and conditions meet the description of PL 3 and,
- The short term weather outlook (3-5 days) favors the reduction in PL,
- Long term weather outlook favors moderating conditions,
- Competition for resources exists but significant demobilization is occurring,
- Crews are being released to home units,
- 50% of total RMA crew capability is available for new fires,
- Out of RMA IMTs have demobed to home units,
- Support to the national mobilization effort has significantly decreased with less competition nationally.

Preparedness Level 3 to 2

- The fire situation and conditions meet the description of PL 2 and,
- The short term weather outlook (3-5 days) favors the reduction in PL,
- Long term weather outlook favors moderating conditions,
- There is minimal demand or commitment of RMA/National Resources,
- Total RMA crew capability is greater than 51%,
- Out of GACC IMTs have demobed,
- Support to national mobilization effort is not significantly impacting RMA initial attack success

Preparedness Level 2 to 1

- The fire situation and conditions meet the description of PL 1 and,
- The short term weather outlook (3-5 days) is favorable for reduction in the PL,
- Long term weather outlooks favor moderating conditions,
- RMA crew capability is greater than 75% or if lower it is because it is the end of the season and crews have disbanded,
- Support to the national mobilization effort has minimal or no impact on RMA initial attack success.

*Note: A significant RMA or national level natural or human caused disaster that requires considerable commitment could result in the rise of Preparedness Levels at any time regardless of wildland fire conditions.

Preparedness Level Action Items

The matrix below is intended to **GUIDE** management personnel through a decision making process to determine in a timely manner the need to increase major resource availability base and potentially preposition resources to the affected area of influence. It is also intended as a checklist for management considerations that will affect desired communications and protect fire fighter safety. **This is not intended to be a comprehensive list of the actions that may be needed at various levels of complexity.**

ACTION ITEMS	Level 1	Level 2	Level 3	Level 4	Level 5
RMACC Action Items					
Review Resource Drawdown Table	----	As needed	As needed	Daily 0700 hours	Daily 0700 hours
Fire Behavior Assessment	----	----	As needed	Daily 0700 hours	Daily 0700 hours
Safety Message	As needed	As needed	As needed	Daily 0700 hours	Daily 0700 hours
RMA Dispatch Conference Call	Monthly or as needed	Weekly	Weekly	Daily	Daily
RMACC Daily Briefing	As needed				
RMA Tactical Group Conference Call	As needed				
Additional Predictive Services Support	----	As needed	As needed	As needed	As needed
Additional Intelligence Support	----	As needed	As needed	As needed	As needed
RMACC Public Information Officer	As needed	RMACC	RMACC	RMACC	RMACC
Communications Coordinator / Airspace Coordinator	----	As needed	As needed	RMACC	RMACC
Fixed Wing Coordinator	----	As needed	As needed	RMACC	RMACC
IT Support	On-call	On-call	RMACC	RMACC	RMACC
Crew Coordinator	----	As needed	As needed	As needed	As needed
Mob Center		----	Consider	Activated	Activated
Logistics Support	----	As needed	As needed	As needed	As needed
Finance Support	----	As needed	As needed	As needed	As needed
Training Specialist	As needed	As needed	RMACC	RMACC	RMACC
GISS	As needed	As needed	As needed	As needed	As needed

ACTION ITEMS	Level 1	Level 2	Level 3	Level 4	Level 5
RMCG Action Items					
RMCG Fire Duty Officer	On-call	On-call	On-call	Replace with MAC Coordinator when MAC is convened	
Preposition IMTs	----	----	As needed	As needed	As needed
MAC Group Action Items					
MAC Activation	----	----	Conference calls as needed	Activated	Activated
MAC Coordinator	----	----	As needed	Activated	Activated
FAST	----	----	----	As needed	As needed
SAT	----	----	----	As needed	As needed
ASAT	----	----	----	As needed	As needed
FBAN/LTAN	----	----	As needed	As needed	As needed
Aviation Ops. Specialist	----	----	As needed	As needed	As needed
MAC Operations	----	----	As needed	As needed	As needed
MAC Plans	----	----	As needed	As needed	As needed
Safety Officer	----	----	As needed	As needed	As needed

Resource Drawdown Levels

The matrix below is intended to **guide** management personnel through a decision making process to determine in a timely manner the need to increase major resource availability base and potentially preposition resources to the affected area of influence.

It is also intended as a **preliminary checklist** to initiate the framework for management considerations that will affect desired communications and protect fire fighter safety.

RESOURCE DRAWDOWN LEVELS	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
National Resources (not under the control of RMA)**					
IMT1	On-call	On-call	On-call	On-call	Staged
Type 1 Crews	0	0	2	4	6
Heavy Airtankers	0	1	3	5*	5*
Lead Planes/ASM	0	1	2	3	3
Type 1 Helicopters	0	0	2	3	4
Type 2 Helicopters	0	0	2	3	5
Smoke Jumpers	0	12	18	24	24
Smoke Jumper Aircraft	0	1	1	2	2
4390 Starter System	1	2	3	4	4
Non-national resources (may be under the control of RMA)					
IMT2	On-call	On-call	On-call	Staged	Staged
Type 2 Crews	0	2	5	10	15
Engines***	0	0	***	***	***
SEAT ****	0	2	3	4	5
Air Attack*	1	2	3	4	5
Type 3 Helicopters*	2*	2*	4*	5*	5*
NG Helicopters	0	0	0	Alert	Alert
Cache Vans 250	1	1	3	5	5
Mobilization Centers	0	0	Area	Area	Area

*The helicopters and air attack can be CWN or exclusive use contracts. Consider that some agency exclusive use helicopter contracts may have minimum flight hours.
**National resources are allocated at the national level.
***Determine availability and capability of engines on geographic area basis.
****State contracted SEATs are normally only mobilized to incidents within their respective state boundaries unless pre-approved.

The above matrix typically reflects the RMA's Core Fire Season. Resource drawdown levels fluctuate and are subject to change based on additional influences.

RMA Mobilization Center
(Refer to the RMA Mob Center Plan on the RMACC website at http://rmacc.info/.)

Multi-Agency Coordinating (MAC) Groups
(Refer to NMG Ch. 10)
Multi-Agency Coordinating (MAC) groups should be activated at local and geographic areas whenever wildfire activities are affecting more than one agency or there is competition for incident resources. Local area MAC groups should be developed to provide greater efficiency to fire suppression organizations while relieving coordination centers and dispatch centers of heavy workloads during active situations.

Rocky Mountain Area Multi-Agency Coordinating (MAC) Group
Responsibilities of the RMA MAC Group are outlined in the RMA MAC Plan. Current RMA MAC Group membership is available on the RMACC website. (http://rmacc.info/rm_mac_group.php).

International Agreements
(Refer to NMG Ch. 10)

Interagency Agreements and Memorandums of Understanding for the RMA
Miscellaneous Information and Definitions:
Most agreements and Memorandums of Understanding (MOU) terminate after five years unless otherwise specified within the document. In most cases, a one year extension may be granted. The agreement start date is the last dated signature.

Agreements:
An Agreement is required if there will be an exchange of funds.
- Fire protection areas need separate agreements (i.e., IA agreements by State)
- Dispatch Centers are covered under Master State Agreements and Annual Operating Plans.

Memorandums of Understanding (MOU):
An MOU is the same as a verbal agreement (parties agree to agree; an understanding). Funds cannot be exchanged or transferred with an MOU. To eliminate the need for multiple local and area Agreements and Memorandums of Understanding within and adjacent to RMA Boundaries, verbiage has been incorporated within Chapter 10 - Policy, of the RMG. This language, in concert with existing parent agreements, allows adjacent dispatch centers within and adjoining the RMA to work directly with one another to support initial attack suppression efforts, without having to develop additional agreements.

This chapter contains a brief description of the primary Agreements and Memorandums of Understanding within and adjacent to RMA Boundaries. Complete copies of all agreements are on file at the RMACC unless otherwise noted. These agreements affect National, Area, and Local mobilization efforts.

Mutual Aid Agreements
Mutual aid agreements have the primary purpose of providing initial attack (IA) and short-term logistical support between adjoining units and dispatch centers.

Colorado Statewide Cooperative Wildland Fire Management and Stafford Act Response Agreement
The Colorado Statewide Cooperative Wildland Fire Management and Stafford Act Response Agreement is an agreement among USDI, Bureau of Land Management - Colorado; USDA, Forest Service, Region 2; USDI, National Park Service, Intermountain Region; USDI, Fish and Wildlife Service, Mountain Prairie Region; USDI, Bureau of Indian Affairs, Southwest Region; Colorado Division of Fire Prevention and Control; and Colorado State Forest Service.
(Signed 6/1/2011; Expires 12/31/2016)

The Parent Agreement establishes statewide authority for interagency fire protection assistance and cooperation between the above mentioned agencies, for mutual cooperation in fire training, prescribed fire, prevention, pre-suppression, and suppression activities.

South Dakota Interagency Cooperative Fire Management Agreement
The South Dakota Interagency Cooperative Fire Management Agreement is among USDI, Bureau of Land Management, Montana/Dakotas; USDI, Bureau of Indian Affairs, Great Plains and Rocky Mountain Regions; USDI, National Park Service, Midwest Region; USDI, Fish and Wildlife Service, Mountain Prairie Region; USDA, Forest Service, Regions 1 and 2; and the South Dakota Department of Agriculture, Division of Wildland Fire Suppression**.**
(5 Year agreement was up in 2012, extensions have been signed annually. Signed 2/24/2015; Expires 8/16/2016)

The Parent Agreement establishes statewide authority for interagency fire protection assistance and cooperation between the above mentioned agencies, for mutual cooperation in fire training, prescribed fire, prevention, pre-suppression, and suppression activities.

Wyoming Interagency Cooperative Fire Management Agreement
The Wyoming Interagency Cooperative Fire Management Agreement is among USDI, Bureau of Land Management, Wyoming; USDI, National Park Service, Intermountain Region; USDI, Bureau of Indian Affairs, Rocky Mountain Region; USDA, Forest Service, Region 2; USDI, Fish and Wildlife Service, Mountain Prairie Region; and Wyoming State Forestry Division**.**
(Signed 3/29/2012; Expires 3/29/2017)

The Parent Agreement establishes statewide authority for interagency fire protection assistance and cooperation between the above mentioned agencies, for mutual

cooperation in fire training, prescribed fire, prevention, pre-suppression, and suppression activities.

Kansas Interagency Cooperative Fire Management Agreement
The Kansas Interagency Cooperative Fire Management Agreement is among USDA Forest Service, Region 2; USDI, Bureau of Indian Affairs, Southern Plains Region; USDI, National Park Service, Midwest Region; USDI, Fish and Wildlife Service, Mountain Prairie Region; USDI, Bureau of Reclamation, Great Plains Region; Kansas Forest Service; Kansas Department of Wildlife and Parks; and the Kansas Division of Emergency Management.
(Signed 5/3/2012; Expires 5/5/2017)

The Parent Agreement establishes statewide authority for interagency fire protection assistance and cooperation between the above mentioned agencies, for mutual cooperation in fire training, prescribed fire, prevention, pre-suppression, and suppression activities.

Nebraska Interagency Cooperative Fire Management Agreement
The Nebraska Interagency Cooperative Fire Management agreement is among USDI National Park Service, Midwest Region; USDI, Bureau of Indian Affairs, Great Plains Region; USDI, Bureau of Reclamation, Great Plains Region; USDI, Fish and Wildlife Service, Mountain Prairie Region; USDA, Forest Service, Rocky Mountain Region; and Nebraska Emergency Management Agency; Nebraska Forest Service; Nebraska Game and Parks Commission; Nebraska Military Department; and the Nebraska State Fire Marshal. **(Expires 4/12/2018)**

The Parent Agreement establishes statewide authority for interagency fire protection assistance and cooperation between the above mentioned agencies, for mutual cooperation in fire training, prescribed fire, prevention, pre-suppression, and suppression activities.

Ordering Between Local Offices across GACC Boundaries
Local dispatch centers adjacent to one another in the Eastern, Southern, Southwest and Rocky Mountain Areas may engage in resource ordering across GACC boundaries. Formal agreements or MOUs will be required if there is any exchange of funds or a need for cross-billing authorities.

Local dispatch centers will work with local fire management organizations to determine the type of resources (for example, single overhead resources, hand crews, equipment) and/or type of incidents (for example, initial attack/mutual aid, prescribed burning activities, natural resource work) that would be available to support neighboring zones.

The sending GACC must grant approval to the local center before any National or Geographic type resources are sent across GACC boundaries. Additional approval will

be required as dictated by geographic and national preparedness levels and incident/resource prioritization

Resources sent across GACC boundaries cannot be reassigned without prior approval from the sending GACC and the sending local unit. In some GACCs, initial attack resources may require a resource order if extended beyond the first operational period.

Greater Yellowstone Area Neighborhood Ordering

The Greater Yellowstone Coordinating Committee's (GYCC) Fire Management Advisory Group (FMAG) was created in response to the 1988 Yellowstone fires. In September of that year the Secretaries of Agriculture and Interior appointed a Fire Management Policy Review Team. The team provided 15 recommendations which were incorporated into agency directives, and served as the framework for creating the FMAG and the Greater Yellowstone Area Interagency Fire Management Planning and Coordination Guide (GYA Fire Management Guide).

Currently, fire management is just one of several resource areas that the GYCC addresses across numerous jurisdictional boundaries. The FMAG strives to coordinate the management of prescribed fire, multiple, large and/or complex wildfire incidents within the Greater Yellowstone Area (GYA). A key to successful coordination and management of wildland fire is the ability to share resources.

Ordering within the GYA will cross three geographic area boundaries. The neighborhood and closest forces concepts will be followed. When a local dispatch office determines that the closest resource is within the GYA, but outside of their selection area, they must document in special needs: "Name Request based on the GYA Agreement", and process according to normal dispatch channels.

Only Federal Agency owned resources may be ordered. National and Contracted resources are not part of this ordering process without GACC approvals being obtained.

Mobilization/Demobilization Procedures for Military Assets and International Assignments

(Refer to NMG 10)

Established Resource Ordering Process

(Refer to NMG 10)

Civilian Support

(Refer to NMG 10)

National Guard

At certain times the National Guard has available helicopters, equipment, and personnel that are useful in the suppression of forest and range fires on Federal and State lands. The National Guard units may be ordered through the State for state incidents or the RMACC for federal incidents. At this time, only helicopter resources have been identified in a pre-season agreement.

Ordering Channels

Geographic Area Coordination Center / Dispatch Centers

Definitions

- **Geographic Area:** A defined section of real estate for coordination responsibility.
- **National Interagency Coordination Center (NICC)**: An office that coordinates the movement of resources between Geographic Area Coordination Centers in the United States. The NICC has responsibility for international response, as requested, and activation of U.S. military units.
- **Geographic Area Coordination Center (GACC):** An office that coordinates the mobilization and demobilization of resources between Dispatch Centers within a defined geographic area. The Area Coordination Center has interagency-delegated authority and responsibility to provide incident support in the coordination of resource mobilization and allocation. The Area Coordinating Group directs the Area Coordination Center. Requests and provides support, through the National Interagency Coordination Center, to other Geographical Areas.
- **Dispatch Center:** An office with the authority and responsibility to assign resources directly to an incident, primarily during initial attack and/or extended incident support. A Dispatch Center should be totally interagency integrated. It has the responsibility for initial attack and incident support at BIA Agencies, BLM Field Offices, FWS Refuges, NPS Parks, USFS Forests, State District levels or any combination of these. Adjoining Dispatch Centers may work directly with each other during initial attack to more effectively obtain closest resources. Dispatch Centers request support from the Geographic Area Coordination Center (GACC) when local and mutual aid resources become committed or unavailable.
- **Unit:** An agency described administrative area such as a National Forest, National Park or Monument, FWS Refuge, BIA Agency, BLM Field Office, State District, etc.
- **Neighborhood:** Any dispatch center may order Initial Attack resources directly from an adjoining RMA dispatch center. Additionally, dispatch centers may order resources from approved adjacent RMA dispatch centers (neighbors) for extended attack, large fire support, and non-fire incidents in order to support incidents within their own dispatch center zone.
- **Rocky Mountain Area Wide Ordering:** Allows RMA dispatch centers to order resources statused in ROSS directly from one another under certain parameters and rules, during PL 1 & 2.

Rocky Mountain Area Interagency Dispatch Centers

Dispatch Centers		Email
Casper Interagency Dispatch Center	WY-CPC	casper_dispatch@yahoo.com
Cody Interagency Dispatch Center	WY-CDC	codydispatch@gmail.com
Craig Interagency Dispatch Center	CO-CRC	craiginteragency@gmail.com
Durango Interagency Dispatch Center	CO-DRC	durangodispatch@yahoo.com
Fort Collins Interagency Dispatch Center	CO-FTC	fortcollinsdispatch@yahoo.com
Grand Junction Interagency Dispatch Center	CO-GJC	gjcdispatch@gmail.com
Great Plains Interagency Dispatch Center	SD-GPC	No office email in place, use individual
Montrose Interagency Dispatch Center	CO-MTC	montrosedispatch@yahoo.com
Pueblo Interagency Dispatch Center	CO-PBC	copbcdispatch@gmail.com
Rawlins Interagency Dispatch Center	WY-RWC	rawlinsdispatch@yahoo.com
Rocky Mountain Area Coordination Center	CO-RMC	rmacoordctr@gmail.com

Notification/Communication

A mailing list will be used by dispatch centers within the RMA. The purpose of the notification/communication mailing lists is to provide units and centers with timely information in regard to resource information, and dispatch/coordination information sharing.

Rocky Mountain Area Units

The RMA Unit identifier tables are available from the National Database of Record.

Unit Identifiers

(Refer to NMG 10 and NWCG PMS 931)
The RMACC Center Manager shall designate both a Unit Identifier Data Custodian and alternate for their geographic area.

Ordering Procedures

(Refer to NMG 10)
The RMACC in conjunction with RMA Interagency Dispatch Centers will follow established ordering channels for incidents, preparedness, severity, and wildland fire.

Any Dispatch Center may order Initial Attack resources directly from their approved neighboring dispatch center, regardless of planning level. See Rocky Mountain Neighborhood Resource Ordering.

All orders/requests and faxes will be followed up by a telephone call.

Keep a record of who has been contacted within ROSS documentation.

Support to Border Fires

(Refer to NMG 10)

Mobilization and Demobilization Information

Travel information for resources will be transmitted by using the ROSS travel function. Each travel segment will identify mode of travel, carriers name with flight numbers, departure and arrival locations with estimated departure time and estimated arrival time (ETD/ETA) using the local time and time zone. See the ISROG for further information.

It is the responsibility of the sending dispatch center to make all incident travel arrangements for and/or receive incident travel from mobilizing resources. The receiving unit is responsible for the demobilization travel arrangements.

At all RMA preparedness levels, resource ordering selections areas to hosting dispatch centers will be maintained for VIPR (Virtual Incident Procurement) contracted resources.

Neighborhood Ordering

Neighborhood Ordering Definition

Dispatch centers may order resources from approved adjacent neighbors for extended attack, large fire support, and non-fire incidents, in order to support incidents within their own dispatch center zone. Existing RMA neighborhoods have been defined to facilitate the movement of aircraft from air tanker bases during higher planning levels.

Resource ordering standards apply for the movement of all resources. This includes Initial Attack procedures, Resource Orders, notifications for national and RMA resources, ROSS travel and reassignment procedures. (Refer to NMG 10)

All prescribed fire (RX) resources will be ordered using the same dispatch procedures as used for wildfire mobilization.

Neighborhood Ordering Procedures

When a resource is unavailable through Neighborhood Ordering, the requesting unit will place the order with the RMACC. The RMACC will obtain resources through established dispatch channels and will normally not check with the requesting dispatch centers neighborhood, unless the "Neighborhood Resource Ordering" has been withdrawn.

Dispatch centers cannot reassign resources to another dispatch center without the permission of the resources home dispatch center if that resource was originally mobilized through the Neighborhood Policy. Only when permission from the home unit is granted may a resource be reassigned from one neighborhood to a second, non-adjacent neighborhood. A copy of the printed or electronic ROSS order should be relayed through the RMACC to the home dispatch center.

If the RMACC needs a resource which has been mobilized neighbor to neighbor, the RMACC will place the order with the resource's home dispatch center.

At a dispatch center manager's discretion and with the RMACCs approval, a dispatch center may temporarily withdraw their participation in the neighborhood.

The RMACC has the authority to withdraw Neighborhood Ordering. Traditional ordering procedures will be utilized when Neighborhood Ordering is withdrawn. Example: Dispatch Center to GACC to Dispatch Center.

Rocky Mountain Area Wide Ordering (RMW) Definition

To facilitate more efficient movement of resources, balance the workload, and utilize ROSS technology to its fullest potential, the RMA has implemented RMW. RMW will allow all dispatch centers in the RMA to order resources statused in ROSS directly from one another under certain parameters and rules.

RMW will be utilized only at RMA Preparedness Level 1-2. At Preparedness Level 3, RMW will be "turned off" (selection areas in ROSS will be modified), and all ordering will be done using traditional neighborhood boundaries and neighborhood dispatching procedures.

All orders for IMTs, BUYTs, and other resources normally obtained through the RMACC will continue to be placed with the RMACC.

RMW is authorized within RMA boundaries only, and does not replace existing initial attack agreements and procedures with dispatch offices across geographic area borders. RMW does not preclude the "Closest Forces" concept. Each dispatch center will be responsible to ensure that closest forces are being used when ordering per National and RMG direction.

Dispatch center managers will monitor the potential impacts of RMW. A dispatch center may temporarily withdraw at any time, upon notification to the RMACC who will notify RMA Dispatch Centers. That center will advise the RMACC when ready to resume RMW ordering. The RMACC will notify the RMA dispatch centers.

The RMACC has the authority to withdraw RMW. Traditional neighborhood ordering procedures will be utilized when withdrawn.

RMA dispatch center managers and the RMACC center manager will evaluate the effectiveness of RMW on regularly scheduled conference calls.

Rocky Mountain Area Wide Ordering Procedures

The RMACC will change selection areas in ROSS for all dispatch centers from Neighborhood selection areas to the RMW selection area. This is best done at the end of an operational shift.

All orders must be placed in ROSS. Phone call confirmation follow-up is recommend. **Keep a record of who has been contacted within ROSS documentation.**

Resource requests should be filled in the order they are received. If resource prioritization is necessary, the RMACC will be contacted and will make priority determination.

When a dispatch center withdraws from RMW, that dispatch center manager will contact the RMACC Coordinator-On-Duty, who will notify the RMA dispatch centers. The remaining dispatch centers will continue to operate within the RMW selection area.

A dispatch center manager may return to RMW by notifying the RMACC Coordinator-On-Duty. The RMACC will notify the RMA dispatch centers.

Non-compliance may result in RMW being turned off for that center.

Notification is required for national and RMA resources.

Rocky Mountain Neighborhood Resource Ordering

The following list defines the approved neighborhood for each dispatch center:

Dispatch Center	**May order directly from:**
CDC	CPC, RWC
CPC	CDC, CRC (RTF resources only), GPC, RWC
CRC	CPC (MBF resources only), FTC, GJC, RWC
DRC	MTC, PBC
FTC	CRC, PBC, RWC, GPC
GJC	CRC, MTC
GPC	CPC, PBC, FTC
MTC	DRC, GJC, PBC
PBC	DRC, FTC, MTC, GPC
RWC	CDC, CPC, CRC, FTC

RMA Resource Ordering Chart

The following chart describes resource types, the approved ordering method for the Preparedness Level (PL), and the required notifications.

IA = Initial Attack – Any Dispatch Center may order Initial Attack resources from adjoining RMA Dispatch Centers.
NH = Neighborhoods - Approved RMA Dispatch Center neighbors.
RMW = Rocky Mountain Area Wide Ordering – Ordering is approved between all RMA Centers.
RMACC = Place order only to the Rocky Mountain Area Coordination Center.
RMK = Rocky Mountain Interagency Support Cache

RESOURCE	RMA PL 1-2	RMA PL 3-5
Teams - Area/National		
*IMT1 *IMT2, BUYT	RMACC	RMACC
Teams - Local		
* IMT3	NH, RMW	NH
Misc Overhead	NH, RMW	IA, NH
Crews		
*Type 1	NH, RMW	IA, NH
*Type 2	NH, RMW	IA, NH
*Type 2 I/A	NH, RMW	IA, NH
*WFM – Type 1, 2	NH, RMW	IA, NH
Supplies/Telecommunications		
*Cache Vans	RMACC	RMACC
*NFES – 4000 Series	RMACC	RMACC
All NFES except 4000 Series	RMK	RMK
*IRAWS	RMACC	RMACC
Equipment		
Engines, Tenders, Rolling Stock	IA, NH, RMW	IA, NH
Aircraft – Rotor Wing		
*CWN - Type 1 & 2	RMACC	RMACC
*CWN - Type 3	IA, NH, RMW	IA, NH
*Exclusive Use – Type 1, 2, 3	IA, NH, RMW	IA, NH
Aircraft -Fixed Wing		
* Airtankers, SEATs	IA, NH, RMW	IA, NH
* Lead Planes, Air Attack	IA, NH, RMW	IA, NH
* I/A Load of Smokejumpers	IA, NH, RMW	IA, NH
* Smokejumper Aircraft	IA, NH	RMACC, NH
Aircraft - Services		
TFRs, IR Flights, Portable Towers	RMACC	RMACC

If there is an asterisk*, phone notification is required to RMACC.

Non-Incident Related Ordering (Refer to NMG 10)
Resource acquisition not related to an incident, preparedness, severity or wildland fire may also follow standard ordering procedures. The use of appropriate cost coding procedures is required. Non-incident related overhead orders may require a detail request form.

Non-Fire Incident Funding
Non-fire incident funding agreements must be in place. Resource orders must be placed with appropriate management codes. A detail request form should be utilized if appropriate.

Resource Availability

- Resource availability will follow individual dispatch centers operating plans.
- Dispatch centers are responsible for maintaining availability for all area and national resources physically located within their area of influence.

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CHAPTER 20

Chapter 20
Overhead and Teams

National Incident Management System (NIMS) Positions

(Refer to NMG 20)

Incident Qualifications and Certification System (IQCS) Position Codes

(Refer to NMG 20)

The Incident Qualifications and Certification System (IQCS) is a federal information management system that tracks training and certifications for Wildland Firefighters. For a complete list of all IQCS recognized Position Codes, refer to the following web site: **http://iqcs.nwcg.gov.**

The Incident Qualifications System (IQS) is the state system of record.

Overhead Mobilization & Demobilization

(Refer to NMG 20)

To manage fatigue, every effort will be made to conduct mobilization and demobilization travel between 0500 hrs. and 2200 hrs.

All personnel should carry some form of valid photo identification while traveling to and from incident assignments. This is required if mobilizing/demobilizing by commercial airlines. All personnel are required to carry a current Incident Qualification Card (red card) reflecting the position they are being mobilized for.

Name Request Orders

(Refer to NMG 20)

Name requests for suppression or all-hazard incidents should be rare and are appropriate only for highly specialized positions or to meet specific agency objectives (for example, name requests between NPS agencies).

Per the NMG, the ordering unit must confirm availability for the individual being requested prior to placing the request.

Name requests for Geographic Area Priority Trainee positions will be justified within special needs as being approved by the Geographic Area Priority Training Coordinator (GATR) and will be processed without delay.

To assist the RMACC in processing name requests, the following information is needed:

- Resource requested should be statused available so that the order is not inadvertently returned UTF by the sending unit.
- Verify the name request has appropriate qualifications and meets any special needs and inclusions/exclusions requested on the order.
    - Examples include federal only, host agency only, no ADs, no contractors, correct financial code, etc.
- Justification/Documentation to be included in Special Needs.

- Examples include primary team member, currency assignment, assignment needed to meet IFPM, Priority Trainee, identifiable special skills, line qualified, state certification, etc.

All name requests processed through the RMACC require that the RMACC Center Manager and/or the Coordinator-on-Duty (COD) approve the resource order. If the name request is not filled by the sending unit, it will be returned to the requesting unit by the NICC as UTF, per the NMG.

Interagency Wildland Fire Modules (WFM)
(Refer to NMG 20, PMS 430-Interagency Standards for Wildland Fire Use Module Operation, Interagency Standards for Fire and Fire Aviation Operations-Red Book)

Orders for Interagency Wildland Fire Modules will be placed through established ordering channels in ROSS using an Overhead Group Request (Module, Wildland Fire, Type 1 or Module, Wildland Fire, Type 2) and configured according to Chapter 20 of the NMG.

The RMA has eleven Interagency Wildland Fire Modules. Start dates indicate the first day for the module and not necessarily the modules availability date.

WILDLAND FIRE MODULE	UNIT	DISP	LOCATION	TYPE	START	END
Alpine	CO-RMP	FTC	Estes Park, CO	**1**	**10/16**	**5/8**
Black Hills	SD-WCP	GPC	Hot Springs, SD	**1**	**3/8**	**10/31**
Black Tooth	WY-BHF	CDC	Buffalo, WY	**1**	**6/15**	**10/31**
Columbine	CO-SJF	DRC	Bayfield, CO	**1**	**5/2**	**10/31**
Southern Rockies	CO-COI	FTC	Loveland, CO	**1**	**4/1**	**10/31**
Storm Peak	CO-RTF	CRC	Steamboat Springs, CO	**1**	**5/2**	**10/31**
Unaweep	CO-GJD	GJC	Grand Junction, CO	**1**	**4/20**	**10/16**
White River	CO-WRF	GJC	Rifle, CO	**1**	**5/25**	**10/16**
Bear Peak	CO-RMKX	FTC	Boulder, CO	**2**	**4/11**	**11/15**
Platte Canyon	CO-PLAX	PBC	Bailey, CO	**2**	**5/2**	**10/31**
Rocky Mountain	CO-RMP	FTC	Estes Park, CO	**2**	**5/8**	**9/30**

Interagency Wildland Fire Module Mobilization
(Refer to the NMG 20)

Ordering Considerations for WFM which should be noted in Special Needs:

- With transportation
- ATVs needed
- Current Certification (Type 1 or 2)

If requested, WFMs can be configured and mobilized with less than the standard WFM configuration, but only after agreement between the requesting and sending units. Any negotiated configurations must be identified within the original request.

Smokejumpers
(Refer to NMG 20)
The RMA has a BLM contingent of 12 smokejumpers and one aircraft. The smokejumpers will be dedicated RMA resources from approximately June 1 through September 30.

When the RMA contingent is located in Boise, the RMACC Center Manager or COD will coordinate with the Colorado and/or Wyoming BLM Duty Officer and the Smokejumper Duty Officer in Boise for pre and post season movement of the smokejumpers. The RMACC will monitor the RMA severity and fire situation closely and preposition smokejumpers as necessary in coordination with the RMA Tactical Group.

Adjacent dispatch centers may order smokejumpers for initial attack directly from the unit hosting the smokejumpers. If smokejumpers are not available, the ordering unit will place the smokejumper order with the RMACC. If an initial attack smokejumper order has to be filled through the NICC due to lack of resources in RMA, the order will be placed through the RMACC according to national guidelines.

Initial Attack orders for smokejumpers are done on an Aircraft Resource Order in the RMA.

Ordering:
Initial Attack Load
When smokejumpers are needed jump-ready for initial attack with aircraft, they are to be requested in ROSS as “Load, Smokejumper, Initial Attack” on an Aircraft request. The sending unit will fill the request in ROSS and will forward a manifest form, with name and agency identification, through the established ordering channels. This information can be acquired after the jump ship is airborne. Any intent to retain smokejumpers which have not been utilized as an IA load will be negotiated between the RMACC and the NICC.

If the RMACC pre-positions smokejumpers when multiple starts are occurring or predicted, they need to specify the anticipated duration. If not deployed during this period, smokejumpers will be made available for higher priorities, unless longer duration is negotiated between the RMACC and the NICC. This will be identified in special needs as “Preposition”.

Aircraft delivering Initial Attack smokejumpers will return to the sending base or a designated airport before the end of the pilot’s daily flight or duty limitations. Any intent or necessity to retain the aircraft will be negotiated between the NICC and the RMACC. If the aircraft is retained past the first operational period, it will be placed on an Aircraft request through established ordering channels.

Booster Load / Individual Smokejumper Pre-position:
Boosters may be ordered from one individual base or could be filled by individuals from multiple bases. When requesting a booster or pre-positioning individual smokejumpers, they will be ordered by individual Overhead requests through the RMACC. Requests may specify a desired delivery system (round or square parachutes). Booster load/individuals may be kept up to 14 days. The NICC, GACCs and the local dispatch center should communicate with the hosting and potential sending smokejumper base(s) before the order(s) are placed and filled.

Smokejumper aircraft must be ordered separately if the aircraft is needed beyond delivery of the smokejumpers.

Smokejumpers held as boosters after release from the first IA assignment will be placed on an Overhead order using individual Overhead requests. Smokejumpers recovered and mobilized to another assignment, internally or across Geographic Area boundaries, will also be placed on an Overhead order.

Booster: When a contingent is jumped out and there are no internal like-agency jumpers available, a load is ordered out-of-area, through the NICC, that may or may not come jump ready, depending on aircraft availability. They are ordered on O numbers.

Backfill: When a contingent is jumped out, re-enforcements are brought in from the Hosting Base, if available. No order is necessary.

Smokejumper Numbers
(Refer to NMG 20)

Smokejumper Gear, Weights and Volume
(Refer to NMG 20)

Pilots – Lead plane, Aerial Supervision Module and Smokejumper
(Refer to NMG 20)

RMA Pilots

NAME	UNIT ID	Mission Type
Grace Moore	CO-R02	Insect & Disease Mapping
Rick Gicla	CO-R02	Supervisory Lead Pilot (L-28)

Helicopter Modules (Refer to NMG 20, IHOG Ch. 2)
The RMA requires that a qualified Helicopter Module be attached to all CWN helicopters used on interagency incidents within the RMA. Any trainees would be in addition to the qualified module. Staffing for standard category aircraft used in a limited capacity must be authorized by the Agency Aviation Manager at the state or regional level.
CWN helicopters and modules will "marry up" **prior** to going to an incident at an identified, specific location (i.e., airport, FBO, etc.). From Ch. 2 of the IHOG:

Chart 2-1: Minimum Daily Staffing Requirements for Fire Helicopters

TYPE HELICOPTER	FAA STANDARD/TRANSPORT CATEGORY	FAA Standard Category Temporarily Designated for Limited Use	FAA Standard Category Permanently Designated for Limited Use or FAA Restricted Category
1	Manager plus Four (4) Helicopter Crewmembers	Manager only	Manager only
2	Manager plus Three (3) Helicopter Crewmembers	Manager only	Manager only
3	Manager plus Two (2) Helicopter Crewmembers	Manager only	Manager only
CWN Helicopter and Module should meet up away from incident(s) or fire operations. The minimum required staffing levels must be filled with fully qualified personnel. Trainees may be ordered in addition to the standard module configuration.			

Units requesting helicopter modules for CWN helicopters will do so using an Overhead support request for each position. Helicopter module requests should be coordinated with anticipated helicopter delivery time and location. Ordering a helicopter module for a CWN helicopter is not automatic. Ordering units should attempt to fill helicopter module positions internally first.

If the intended use is for initial attack, the HMGB request must specify that a fitness level of arduous is required. Any other qualification requirements (ICT4, etc.) must also be specified. If helicopter personnel/modules are required to arrive with special needed items (flight helmets, radios, tools, helicopter support kit, etc.), it must be specified at the time of request.

Helicopter Rappellers
(Refer to NMG 20)

Rappeller & Helicopter Manager Gear, Weights and Volume
(Refer to NMG 20)

Non-Standard Overhead Groups (Refer to NMG 20)

Communications Coordinator (Refer to NMG 20)
A Frequency Coordinator will be ordered in the RMA during Preparedness Levels 4 -5 and could be ordered during Preparedness Levels 2-3.
Refer to National Incident Radio Support Cache (NIRSC) Users Guide.

Incident Meteorologist (IMET) (Refer to NMG 20)
An IMET will be ordered by each Type 1 Incident within the RMA. When an IMET is needed for an incident, the request will be placed up to the RMACC who will follow the procedures outlined in the NMG.

Cache Support Positions (Refer to NMG 20)
More information can be found in the RMK Cache Operating Plan located on the RMACC webpage at http://rmacc.info/logistics/cache/RMK_OpPlan.pdf.

Human Resource Specialist
(The following applies to incidents on USDA-Forest Service lands only).
A Human Resource Specialist (HRSP) will be ordered for Forest Service incidents with 300 or more people. Incident Commanders should evaluate the need for this position on incidents with less than 300 people and order one if needed.

Union Representative
Per Article 28.2 (d) of the National Federation of Federal Employees (NFFE) Master Agreement: "When a staffing level of 300 individuals on a Forest Service incident or 300 Forest Service employees on other than a Forest Service incident is reached and a command post has been established, the Council Vice-President (CVP) or designee will be notified within 24 hours after the staffing reaches 300. That notification will inform the CVP or designee of the location of the incident and the name of the Incident Commander (IC). The IC will be notified of the name and contact information of the CVP or designee."

Council Vice President
Region 2
Karen Mora
Fort Collins, CO
970-295-5715

Incident Business Advisor (IBA)
An Incident Business Advisor should be ordered for all Type 1 or Type 2 incidents on all federal incidents. Trainees will be negotiated with the hosting unit prior to mobilization.

National Incident Management Teams (IMT)
(Refer to NMG 20)

All Teams:
The Rocky Mountain Area (RMA) sponsors one Type 1 IMT and two Type 2 IMTs. The Type 2 IMTs are referred to as Black and Blue.

IMTs will be ordered using standard resource ordering processes using an Overhead Group request in ROSS and filled with a roster.

Qualified team members are assigned to their team and will not accept miscellaneous overhead assignments (freelance), unless pre-approved by the Incident Commander (IC). The IC is not permitted to freelance.

IMTs that are on incidents are expected to participate on daily RMA "IC conference calls" so that the RMA MAC Group, RMACC staff, RMCG Fire Duty Officer and RMA Tactical Group representatives can better anticipate resource needs and movement within the RMA.

Definition of an IMT assignment:
IMT/IC receives a delegation of authority.

On-call time schedules for the RMA IMT rotations (which may be adjusted by the RMACC Center Manager as the situation dictates) include:

1st position on the rotation list	2 hour on-call
2nd position on the rotation list	8 hour on-call

ICs will inform the RMACC of IMT availability upon release and demobilization from an assignment. Return to call-up status will be negotiated with the RMACC Center Manager. IMTs will normally be provided 24 hours between assignments and such time as required to adequately meet work/rest guidelines.

IMT Member Availability
IMT members are expected to monitor their IMTs on-call rotation schedule and will be considered available and expected to respond to dispatches. Dispatch Centers will not alter an IMT member's status when performing a weekly or bi-weekly ROSS status sweep. **Availability within ROSS must reflect "Available – Local".**

Notification of any unavailability for on-call periods must be made as far in advance as possible, to IC or designee through appropriate channels. IMT members will make unavailability notification, via electronic mail, to their Dispatch Center, the RMACC, and their IC. If notification cannot be made electronically, IMT members can make notification via telephone through their Dispatch Centers to the RMACC. Unavailability notification must include their name, team, unavailability dates, and the reason for unavailability.

Dispatchers will not contact IMT members to verify availability during routine IMT rotations. In the event that an IMT is placed on-call outside of the regular rotation dates, the appropriate dispatch center will verify each team member's availability.

IMT rotations, primary rosters and current on-call rosters will be posted to the RMACC webpage at http://rmacc.info/overhead_teams.php.

IMT Ordering Considerations which should be noted in Special Needs:
What is the Requesting Unit's "Preferred Transportation" for IMT? Fly or Drive? What is the closest jetport if flying?

- When is the initial team briefing to be held? Where is it to be held? Get the address.
- Are "Rental Cars, POVs, Cellphones, Laptops" authorized? If yes, for whom?
- Is the "Date and Time needed" negotiable?
- When POV is authorized and will be used, a cost comparison must be completed and submitted to the resource's dispatch center.
- When rental vehicles are authorized, if a specific type of vehicle is required for the position, it must be noted within Special Needs.
    - All "OFF-ROAD" type of vehicles need to be clearly identified in Special Needs
- Are ADs authorized? Are there any limitations? Example: California will not allow incoming teams to have ADs on the command and general staff.
- Trainees:
    - How many are authorized to accompany team?
    - Are trainees authorized for miscellaneous Overhead?
- Are there special conditions? Example: IMT member meeting up with the IMT several days later.
- If request is for a Type 1 IMT within the RMA, have the 5 additional positions been rostered?
- Short or long IMT if request is for outside of the Rocky Basin Area.
- Agency Administrator – name and contact information.

Rocky Basin Type 1 IMT
The Great Basin (GB) Geographic Area and the Rocky Mountain Geographic Area (RMA) have three Type 1 IMTs on both a combined Great Basin/Rocky Mountain rotation and the national rotation, referred to as the "Rocky Basin". These IMTs are available for dispatch internally between the GB and RMA, and externally, nationally. The Great Basin IMT configuration will be accepted within the RMA.

When mobilizing a Type 1 IMT between the RMA and GB areas, the team requests may initially be placed direct (GACC to GACC), however, once complete, a copy of the order must be sent to the NICC.

The Great Basin Coordination Center (GBC) is responsible for coordination of the Rocky Basin IMT national rotation. GBC will serve as the primary contact for the NICC for the on-call status of the Rocky Basin IMTs.

All three Type 1 IMTs may be committed within the Rocky Basin Geographic Areas before the coordination centers can order from the NICC to obtain additional team(s) from the national rotation. If there is a pre-positioned Type 1 IMT in the area, it will be assigned first.

The RMA IMTs Standard Operating Guides are modified annually and available through the RMA IMT ICs and Operations Committee. The RMACC will retain a current copy of each IMT's current Standard Operating Guide.

Type 1 IMT Rotation and Assignment

Type 1 IMTs will maintain year-round availability. Approved primary rosters for Type 1 IMTs will be effective and posted to the web in February each year to account for annual selection updates. All IMT member qualifications must be current before a mobilization can occur using the new roster. The three Rocky Basin Type 1 IMTs will be on one-week on-call rotations for the RMA and GB areas.

GB/RMA Type 1 rotation and availability within the areas will be simultaneous with the national on-call rotation. The national rotation will have three slots identified as **"**Rocky Basin**"** representing the two Great Basin IMT and the one RMA IMT. The IMT on-call internally between the two areas will be the IMT up on national call.

Once a Type 1 IMT has been mobilized, the next IMT on rotation will fill the remainder of that on-call period and their own scheduled on-call period, so that the scheduled rotation remains the same. If an IMT is mobilized and demobilized within their on-call period, that IMT will resume their on-call status, unless otherwise notified.

Rocky Basin Type 1 IMT Rotation Schedule 2016 – 2017

The one week call-up period will begin at 0001 hours (Mountain Time) on Wednesday and continue through 2400 hours (Mountain Time) on Tuesday.

ALERT DATES	TEAM
Feb 3 – Feb 9, 2016	Great Basin Team 2 - Martin
Feb 10 – Feb 16*	Great Basin Team 1 – Lund
Feb 17 – Feb 23	Rocky Mountain Team - Pechota
Feb 24 – Mar 1	Great Basin Team 2 - Martin
Mar 2 – Mar 8	Great Basin Team 1 – Lund
Mar 9 – Mar 15	Rocky Mountain Team - Pechota
Mar 16 – Mar 22	Great Basin Team 2 - Martin
Mar 23 – Mar 29	Great Basin Team 1 – Lund
Mar 30 – Apr 5	Rocky Mountain Team - Pechota
Apr 6 – Apr 12	Great Basin Team 2 - Martin
Apr 13 – Apr 19	Great Basin Team 1 – Lund
Apr 20 – Apr 26	Rocky Mountain Team - Pechota
Apr 27 – May 3	Great Basin Team 2 - Martin
May 4 – May 10	Great Basin Team 1 – Lund
May 11 – May 17	Rocky Mountain Team - Pechota
May 18 – May 24	Great Basin Team 2 - Martin
May 25 – May 31*	Great Basin Team 1 – Lund
June 1 – June 7	Rocky Mountain Team - Pechota
June 8 – June 14	Great Basin Team 2 - Martin
June 15 – June 21	Great Basin Team 1 – Lund
June 22 – June 28	Rocky Mountain Team - Pechota
June 29 – July 5*	Great Basin Team 2 - Martin
July 6 – July 12	Great Basin Team 1 – Lund
July 13 – July 19	Rocky Mountain Team - Pechota
July 20 – July 26	Great Basin Team 2 - Martin
July 27 – Aug 2	Great Basin Team 1 – Lund
Aug 3 – Aug 9	Rocky Mountain Team - Pechota
Aug 10 – Aug 16	Great Basin Team 2 - Martin
Aug 17 – Aug 23	Great Basin Team 1 – Lund
Aug 24 – Aug 30	Rocky Mountain Team - Pechota
Aug 31 – Sept 6*	Great Basin Team 2 - Martin

Sept 7 – Sept 13	Great Basin Team 1 – Lund
Sept 14 – Sept 20	Rocky Mountain Team - Pechota
Sept 21 – Sept 27	Great Basin Team 2 - Martin
Sept 28 – Oct 4	Great Basin Team 1 – Lund
Oct 5 – Oct 11*	Rocky Mountain Team - Pechota
Oct 12 – Oct 18	Great Basin Team 2 - Martin
Oct 19 – Oct 25	Great Basin Team 1 – Lund
Oct 26 – Nov 1	Rocky Mountain Team - Pechota
Nov 2 – Nov 8	Great Basin Team 2 - Martin
Nov 9 – Nov 15*	Great Basin Team 1 – Lund
Nov 16 – Nov 22	Rocky Mountain Team - Pechota
Nov 23 – Nov 29*	Great Basin Team 2 - Martin
Nov 30 – Dec 6	Great Basin Team 1 – Lund
Dec 7 – Dec 13	Rocky Mountain Team - Pechota
Dec 14 – Dec 20	Great Basin Team 2 - Martin
Dec 21 – Dec 27*	Great Basin Team 1 – Lund
Dec 28 – Jan 3, 2017*	Rocky Mountain Team - Pechota
Jan 4 – Jan 10	Great Basin Team 2 - Martin
Jan 11 – Jan 17*	Great Basin Team 1 – Lund
Jan 18 – Jan 24	Rocky Mountain Team - Pechota
Jan 25 – Jan 31	Great Basin Team 2 - Martin

*** Denotes Holidays**

Type 2 IMTs

The RMA Type 2 IMTs (Black and Blue) have an unrestricted service area and time period availability.

Type 2 IMTs Rotation and Assignment

The RMA Type 2 IMTs will participate in an assignment rotation from approximately April 1st through October 15th. The rotation will apply to assignments within the RMA as well as out-of-area. Approved primary rosters for Type 2 IMTs will be effective when posted to the web each year to account for annual selection updates.

When one Type 2 IMT is assigned outside of the RMA, the remaining Type 2 IMT may be required to remain in the RMA based on conditions, preparedness level and the RMCG Duty Officer approval. When the RMA IMT assigned out of the area returns and becomes available, the IMT that stayed within the RMA would then be made available nationally.

If an IMT turns down an assignment or is unavailable for any reason during their scheduled rotation period, the next IMT in the rotation will be offered any new assignment if available.

In an effort to maintain currency, functionality, and viability of the RMA Type 2 IMTs, the geographic rotation will be followed until such time as there becomes a disparity of two assignments between the Type 2 IMTs annually. To make up for the disparity of assignments, the IMT(s) with the disparity will be given the opportunity for an assignment prior to the IMT on-call.

Type 2 IMTs Rotation 2016 Schedule

The two week call-up period will begin at 0001 hours (Mountain Time) on Wednesday and continue through 2400 hours (Mountain Time) on Tuesday.

Black-Greer	Blue-Esperance
April 6 – April 19	April 20 – May 3
May 4 – May 17	May 18 – May 31*
June 1 – June 14	June 15 – June 28
June 29 – July 12*	July 13 – July 26
July 27 – Aug 9	Aug 10 – Aug 23
Aug 24 – Sept 6*	Sept 7 – Sept 20
Sept 21 – Oct 4	Oct 5 – Oct 18
Oct 19 – Nov 1	Year Round

*** Denotes Holidays**

IMTs are mobilized on a first and second IMT out basis. Once an IMT is mobilized, or if an IMT is unavailable for dispatch, the next IMT in order of rotation will assume their position until they are mobilized or the rotation period ends. If an IMT is released to their home unit, has time left in the rotation period and are available, they will enter the rotation in the last position.

RMA Type 2 IMT Availability during the Off-Season

The State of South Dakota maintains a Type 2 IMT (Blue) which will be available year-round for non-Stafford Act, all hazard incidents and will be mobilized by GPC. For all other incidents including wildland fire and Stafford Act all hazard incidents, RMA IMTs will be mobilized by the RMACC.

RMA IMT General Operating Guidelines

Refer to the RMA IMT Selection and Operating Guidelines document located on the RMACC website at http://rmacc.info/.

Tracking and Mobilization of IMTs

The RMACC will coordinate the mobilization of the IMTs for the RMA.

Step 1: Before Roster

- The RMACC will maintain the Type 2 IMT rotations. The Type 1 IMT rotation is maintained by GBC.
- The RMACC notifies appropriate IC of changes in current-on-call status outside of established rotation dates.
- The IC will identify and designate 2-3 team members to receive specific ROSS training. ICs will coordinate the training with the RMACC. Individuals that maintain rosters in ROSS will need to have a thorough understanding of ROSS and the roster function in ROSS.

Step 2: Build Roster

- The IC or designee will coordinate with the RMACC in maintaining the IMT roster in ROSS, as well as the current on-call roster.
- The IC or designee will confirm IMT member availability and job share positions.
- The IC or designee, in coordination with Section Chiefs, will fill vacancies with identified substitutions.
- The IC or designee, in coordination with Section Chiefs, should search ROSS to fill vacancies. IC will make direct calls to individuals. Assistance in filling vacancies is also available from local centers, the RMACC and the RMA GATR.
- The IC will roster nine (9) trainees.
- The IC will coordinate with the RMA GATR to identify three (3) critical shortage trainee positions to be rostered for the on-call period. These positions will be filled at the time of the IMT mobilization with resources identified by the RMA GATR using the RMA Priority Trainee list or through coordination with the GATRs in other geographic areas.
- The IC and the RMACC Center Manager will determine if IMT listing meets minimum staffing. The RMACC will place orders for vacancies in rostered positions through the NICC at time of mobilization.
- The RMACC will post the current-on-call roster on the RMACC website.

Step 3: Getting an Order

Potential Order

- The RMACC notifies IC and Dispatch Centers/Center Managers of potential IMT order. The ICs and Dispatch Centers/Center Managers MAY implement internal "Phone Trees" and contacts based on "Potential Order".
- **The IC emphasizes that order is "potential" and no action is taken until "official" order is received.**
- NO mobilization actions occur. No phone calls to Dispatch Centers by IMT members should occur.
- The IC or team designee needs to assure that ROSS roster is the final one in order for the RMACC to fill the ROSS order.

Official Order

- To meet work/rest guidelines, no IMT notification or mobilization will occur between the hours of 2300 and 0500.
- Between the hours of 2200 and 2300, the IC and Dispatch Centers/On-call Dispatcher will be notified, but no mobilization will occur.
- The RMACC will notify the IC and Dispatch Centers/Center Managers of placed order for IMT.
- The IC will contact the host agency official and coordinate a reasonable needed date and time and agree upon mode of travel, report to location (in brief), and authorizations: Rental, POV, AOV, laptop, cellphone, etc.
- The IC/Host Dispatch needs to advise the RMACC what has been authorized/approved and the name and contact information for the hosting Agency Administrator.
- The IC will then advise the RMACC of arrangements made with requesting unit. This is the **"official finalized"** order. The RMACC now passes on the date and time needed, as well as the travel mode, to the Dispatch Centers/Center Managers.
- If decision is to fly the IMT, the RMACC will coordinate with the dispatch centers regarding charter flights.
- The RMACC will complete the IMT mob checklist and relay to dispatch centers.
- The ICs will implement internal IMT "phone tree".
- After one hour has passed since the RMACC has received the "**official finalized"** order, it is permissible for an IMT member to contact his/her dispatch office to gather information on what is known about the outstanding resource order, pass travel itinerary, etc., and then begin travel.
- All travel is to be in close coordination with home dispatch center. While enroute to the incident, the individual and dispatch center will maintain contact to confirm the request number and any other outstanding information, as it becomes available.

Checklist for Official Orders
(Ordering considerations - Add to Special Needs as appropriate)

- What is the Requesting Unit's "Preferred Transportation" for IMT? Fly or Drive? What is the closest jetport if flying?
- When is the initial team briefing to be held? Where is it to be held? Get the address.
- Is the date and time needed negotiable?
- Are rental cars, POVs, cellphones, laptops authorized? If yes, for whom?
- When POV is authorized and will be used, a cost comparison must be completed and submitted to the resource's dispatch center.
- When rental vehicles are authorized, if a specific type of vehicle is required for the position, it must be noted within the Special Needs.
    - All "OFF-ROAD" type of vehicles need to be clearly identified in Special Needs
- Are ADs or Supplemental Resources authorized? Are there any limitations? Example: California will not allow incoming IMTs to have ADs on the command and general staff.
- Trainees:
    - Have the nine (9) trainee positions been filled and rostered as identified by the IC?
    - Have the three (3) RMA critical shortage trainee positions been filled and rostered as identified by the GATR?
    - Are additional trainees authorized to accompany the team?
- If request is for a Type 1 IMT within the Rocky Basin, have the 5 additional positions been rostered?
- Are there special conditions? Example: an IMT member meeting up with the IMT several days later.
- Has the Deputy IC been approved if the request is for outside the Rocky Basin Area?
- Short or long IMT if request is for outside the Rocky Basin Area.

Step 4: Travel

- Document and relay "Mode of Travel" to Dispatch Centers (via checklist).
- Work/Rest ratios will be followed by individual IMT members and will be documented in team SOPs.
- **There will be no travel** before **"official finalized"** resource order is received at the RMACC.
- Dispatch Centers will call the RMACC to get verbal authorization to travel if the official team order has not been processed after one hour.
- Team members will notify home Dispatch Center of travel plans before leaving. This includes vehicle IDs, ETD, ETA, RON locations (RON = remain overnight) and cell phone #'s.
- Receiving unit is responsible for the return travel.

NIMO IMT Type of Assignments
(Refer to NMG 20)

NIMO IMT Rotation Process
(Refer to NMG 20)

IMT Configuration
Guidelines for the configuration of the RMA Type 1 IMT and the Type 2 IMTs will follow direction specified in the NMG 20, with the following exceptions:

- Both RMA Type 1 & 2 IMTs are required to carry a qualified Deputy IC,
- RMA IMTs may substitute a Cost Unit Leader (COST) for a Compensation/Claims Unit Leader (COMP).
- RMA IMTs will carry 12 trainees. (6 previously were referred to as S420/520 Command & General Staff Mentees).

Units within the RMA will order teams by Type (1, 2). A long team configuration for both Type 1 and Type 2 will be the standard response within RMA, unless the requesting unit specifically requests a short team.

- IMTs dispatched outside the RMA will follow the configuration as stated in the NMG 20. The mobilization of additional positions at the time of dispatch will only be made with the authorization of the receiving Agency Administrator after consultation with the Incident Commander.
- The Great Basin IMT configuration will be accepted within the RMA.
- If a short IMT is mobilized, the remaining long IMT members (Type 1 & 2) will be kept on-call for a period of 24 hours. After 24 hours, these members will be made available for single resource assignments with IC approval.

<u>NIMO/Type 1 or 2 Short Team Members (Total of 9 positions)</u>

ICT1/ICT2	Incident Commander Type 1 or 2
SOF1/SOF2	Safety Officer Type 1 or 2
PIO1/PIO2	Public Information Officer Type 1 or 2
OSC1/OSC2	Operations Section Chief Type 1 or 2 **(2 each)**
AOBD	Air Operations Section Branch Director
PSC1/PSC2	Planning Section Chief Type 1 or 2
LSC1/LSC2	Logistics Section Chief Type 1 or 2
FSC1/FSC2	Finance/Administration Section Chief Type 1 or 2

<u>NIMO/Type 1 or 2 Long Team Members (17 positions for a Total of 26 with above 9)</u>

DIVS	Division/Group Supervisor* **(4 Each)**
ASGS	Air Support Group Supervisor
ATGS	Air Tactical Group Supervisor
SITL	Situation Unit Leader
RESL	Resource Unit Leader* (**2 Each**)
FBAN	Fire Behavior Analyst
COML	Communication Unit Leader
SPUL	Supply Unit Leader

FACL Facilities Unit Leader
GSUL Ground Support Unit Leader
TIME Time Unit Leader
COST Cost Unit Leader
PROC Procurement Unit Leader

Per NMG standard configuration there are twenty-six (**26)** positions identified on the Long Team configuration. Interagency IMTs may have a maximum of seventeen (**17**) positions to be negotiated and approved by the Incident Commander and the Agency Administrator from the requesting unit.

RMA ICs may roster up to nine (**9**) trainee positions.

RMA Critical Shortage Trainee positions:
(formerly S420/520 Command General Staff mentees)
The RMA GATR will provide three (**3**) Priority Trainees in coordination with the IC. In the event that the IC cannot fill their allotted number of trainees nine (9), the GATR may fill more positions. If the GATR cannot fill their three (3) allotted priority trainees, the IC may fill more than nine (9) trainee positions **for a total of twelve (12) Trainees**. These positions are identified by the IMTs and not by the receiving unit.

Unless notified otherwise, these trainees will be mobilized for incidents on Federal lands.

This equals fifty-five (**55**) team positions altogether as identified in the NMG standard configuration.

RMA IMT Exceptions:
RMA IMT's are required to carry a qualified Deputy IC.

This exception equals a total of fifty-six (**56**) team positions within the Rocky Basin Area.

RMA T1 IMT Exceptions:
For assignments within the Rocky Basin, the RMA Type 1 IMT will roster five (5) additional non-negotiated positions in addition to the seventeen (17) negotiated positions.

This exception for the RMA T1 IMT equals a total of sixty-one (**61**) team positions for assignments within the Rocky Basin.

Type 1 IMT Substitutions

- Type 1 IMTs will be considered unavailable for an assignment if either of the following occur :
    - The primary IC and Deputy IC are unavailable,
    - It is necessary to have more than two substitutes to fill C&G staff positions.
- Substitution of IMT members during assigned availability periods will be made by the IC or designee based on availability. Every effort will be made to substitute any vacant IMT position from within the RMA.
- Generally, substitutes will be assigned for the entire remaining on-call period.

Type 2 IMT Substitutions

- Type 2 IMTs will be considered unavailable for an assignment if both the primary IC and Deputy IC are unavailable.
- Substitution of IMT members during assigned availability periods will be made by the IC or designee based on availability. Every effort will be made to substitute any vacant IMT position from within the RMA.
- Generally, substitutes will be assigned for the entire remaining on-call period.

Job Sharing

Job Sharing of primary IMT positions has been adopted by RMA to facilitate individual work commitments while maintaining team availability and continuity.

Job Sharing will be identified on individual applications and will be considered by the Operations Committee in their normal team selection process.

Following RMA procedure, only one individual will be placed in the shared position on the team roster per on-call period. Job Share positions and individuals will be identified as such on team roster.

Rocky Mountain Area Priority Trainee and Operating Procedures

Every effort will be made to dispatch trainees in the order that has been prioritized by the RMA Operations Committee and the RMA GATR. See the RMA Priority Trainee and Operating Procedures document at http://www.nationalfiretraining.net/rm/policies.

National Area Command Teams, Configuration & Rotation Process

(Refer to NMG 20)

Incident Support Teams

(Refer to NMG 20)

Teams will be ordered using an Overhead Group request in ROSS and filled with a roster.

Buying Teams (BUYT)

(Refer to NMG 20, PMS 315, IIBMH Ch. 40)

The RMA has established one Geographic Area Interagency Buying Team. Configuration of this team is outlined in the Rocky Mountain Area Buying Team Guide. This BUYT may be made available nationally at the discretion of the Buying Team Leader (BUYL) and the RMACC Center Manager/Coordinator-On-Duty (COD). When activated, a BUYT will be assigned to and work for the Line Officer or designated Agency Representative of the host unit.

RMA BUYT members are attached to their team and are unavailable as individual overhead, unless the team stands down or the BUYL approves otherwise. Alternate BUYMs and trainees may go out as individual overhead if not rostered with a BUYT for that on-call period.

The teams will be requested as a team only through established dispatch channels, and not as miscellaneous overhead. If units need additional procurement assistance, orders

may be placed for the specific required positions. The Administrative Officer of the host unit will provide those accommodations and services that are necessary for the unit to function. RMA BUYTs will comply with the RMA Buying Team Guide and guidance found in the IIBMH Ch. 40 Regional Supplement.

- BUYT status and the ROSS roster will be maintained by the BUYT Coordinator at RMC. All BUYMs will be ordered through and mobilized by their respective GACC/home dispatch center.
- The RMA BUYT on-call schedule will start on approx. April 1st at 0001 hours MDT, and end on approx. Oct. 15th at 2400 hrs. MDT. The BUYL has the option of standing the team down at any time. If a team stands down, the remaining members may be available for single resource assignment.

National Interagency Buying Teams

If the RMA Geographic Buying team is unavailable or if a National Buying team is needed, see NMG Ch. 20 for ordering information.

BUYT Priority Trainees

In order to provide the best opportunities for BUYT trainees, all BUYM/BUYL trainees are required to enroll in the RMA Priority Trainee Program. The RM/GB Geographic Areas will create a combined Priority Trainee pool for BUYL and BUYM positions and roster available trainees in order of priority.

BUYT Substitution Procedures

Roster vacancies or substitutions on the RMA BUYT should be filled from the BUYT Alternate list. It is the responsibility of the BUYL and/or BUYT Coordinator to provide substitutions and an updated roster to the RMACC. Substitutes will be assigned to the BUYT for that on-call period. In the event that a BUYL is unavailable and an alternate leader is not available to substitute, the BUYT will stand down until a BUYL becomes available.

Every effort will be made to substitute with BUYT personnel from within the RMA. In the event sufficient resources are not available within the RMA to fill all team positions, the resources may come from other areas. Team assignments from the alternate and trainee lists are for that on-call period only. Substitutes must be rostered prior to mobilization. At the time of mobilization, vacant positions will be filled through normal dispatch channels.

Procedures for Notification of On-Call Status

The BUYL and BUYT Coordinator will ensure that the RMACC has a current roster prior to the on-call period. BUYMs are responsible for knowing the on-call schedule and being available, and for informing their BUYL and local dispatch of changes to availability status during on-call periods.

Procedures for Mobilizing a Buying Team

All orders for BUYTs will follow standard dispatch channels. When a BUYT is requested, the order will be placed with the RMACC. Mobilization information will be processed through established ordering channels.

During periods of high fire activity, incident agencies are encouraged to share BUYTs with neighboring units. The BUYT Coordinator and the RMACC Center Manager/COD will encourage service to multiple incidents with one team wherever practical. BUYTs can be supplemented with additional support personnel to ensure the needs of all incidents are being met.

Reassignment/Demobilization

Normal demobilization procedures for BUYTs will involve demobilizing the entire BUYT at the same time. In certain circumstances, a unit can request continued assistance from individual team members after the team departs and upon approval of the BUYL. If this occurs, an assignment extension request may be needed. (Refer to NMG/RMG 80.) Reassignments of BUYTs will occur as needed.

BUYT performance evaluations will be requested from the agency administrator for all incidents within their jurisdiction. Performance evaluation forms or narratives shall be completed and forwarded to the RMACC Center Manager and BUYT Coordinator.

Roles and Responsibilities for BUYT Coordination and Mobilization

GACC: The RMACC will maintain the status of RMA BUYTs.

Unit Dispatch Centers: Responsible for statusing and mobilizing BUYLs and/or BUYMs from their dispatch area.

BUYLs: Responsible for their BUYT. Assure availability of BUYMs and provide substitutes and an updated roster to the RMACC for each on-call period.

Team Members: Responsible to know the on-call schedule and be available during the on-call period. Provide sufficient notice to their BUYL and dispatch center of unavailability prior to each on-call period.

BUYT Coordinator: Responsible for overall coordination and roster assignments for trainees and substitutions.

National Interagency Buying Team Configuration & Rotation Process

(Refer to NMG 20)

RMA BUYT Rotation

The on-call week runs from 0001 hours (MT) on Wednesday to 2400 hours (MT) on the following Tuesday.

RMA BUYT Coordinator

Brooke Malcolm
RMACC Business Manager
Lakewood, CO
303-445-4306 (voice)
303-445-4321 (fax)
brooke_malcolm@fws.gov

Administrative Payment Teams (APT), Configuration & Schedule Process
(Refer to NMG 20)

Burned Area Emergency Response Teams (BAER)
(Refer to NMG 20)

DOI National Interagency BAER Team Configuration & Mobilization Process
(Refer to NMG 20)

National Fire Prevention Education Teams (NFPETs)
(Refer to NMG 20)
Requests for National Fire Prevention and Education Teams will be placed through established ordering channels using an Overhead Group Request.

NFPET Configuration (NFPETs)
(Refer to NMG 20)

RMA NFPET Coordinator:
Jason Hartman
O785-532-3316
C785-458-2625
hartmanj@ksu.edu

Alternate:
Sheryl Page
O719-553-1638
C303-809-9860
slpage@fs.fed.us

NFPET Schedule Process
Refer to NMG 20; and the NFPET Program Plan found at the NWCG website
http://www.nwcg.gov/branches/ppm/cepc/index.htm

Critical Incident Stress Debriefing Teams (CISD)
Critical Stress Management Teams will be ordered under the following circumstances:

- Line of Duty Death
- Shelter deployment with burn-over
- As requested by unit managers

Each dispatch center will pre-identify local source(s) for Critical Stress Debriefing Teams. Ordering a team may be done at the local level through established ordering channels. If none available locally, the order can be placed through the RMACC.

Wildland Fire and Aviation Safety Teams (FAST)
(Refer to NMG 20)
In addition to the guidance found in the NMG, here are some RMA ordering considerations:

- Cell phones/laptops with wireless/air card/internet capability will be required, and should be reflected on the resource order in special needs.

FAST Configuration & Mobilization Process
(Refer to NMG 20)

Safety Assistance Teams (SAT)
(Refer to the Interagency Standards for Fire and Fire Aviation Operations – Red Book)

Aviation Safety Assistance Teams (ASAT)
(Refer to NMG 20)
The agency or group ordering a national or specialized team will initiate through RMC to ensure coordination and communication with all partnering agencies.

ASAT Configuration & Mobilization Process
(Refer to NMG 20)

Serious Accident Investigation Teams (SAIT)
(Refer to NMG 20)

SAIT Team Configuration & Mobilization Process
(Refer to NMG 20)

CHAPTER 30

Chapter 30
Crews

Crews (Refer to RMG 10, NMG 30)
Crews will be ordered by type. Three types exist for National or Interagency assignments.

Hand Crew types are:
Type 1
Type 2 IA (with initial attack capability)
Type 2

Minimum Crew Standards for National Mobilization
(Refer to NMG 10, 30, RMG 10)
Refer to the Interagency Standards for Fire and Fire Aviation Operations (Red Book) at https://www.nifc.gov/policies/pol_intgncy_guides.html and the Wildland Fire and Aviation Program Management and Operations Guide (BIA Blue Book) found at http://www.bia.gov/cs/groups/xnifc/documents/text/idc013125.pdf for minimum crew standards for national mobilization.

The RMACC will endeavor to rotate crew fire assignments to maintain currency in crew forces.

Crews traveling by air should be prepared to ship their chainsaws or tools if authorized by the incident, or ensure that they are being ordered for them. Refer to the NMG 30 for further guidance.

When four or more crews are mobilized out of the area, an Interagency Resource Representative (IARR) may be ordered by the RMACC. (Refer to NMG 30)

All crew personnel mobilized and demobilized outside the local unit through the NICC will be identified on a crew manifest form. Refer to the NMG 30 for further guidance.

Note: Enter crew resource items in ROSS to correspond with the number of crews that can be mobilized at any one time. For example, if SD-BKF can mobilize 5 crews at any one time, there should only be 5 crew records in ROSS. When the dispatcher fills a crew request, the crew assignment name may be modified to identify the specific crew and identify the mobilization number. For example, consider a crew resource item labeled: CREW – T2 – Black Hills Interagency – Crew #1. At the time of the 14th crew mobilization, the assignment name may be modified to show CREW – T2 – Black Hills Interagency – Crew #1 – Mob #14.

Ordering Considerations for Crews which should be noted in Special Needs

- Transportation needs (does it need to stay with the crew?)
- With tools
- Double lunched
- Adequate water
- Self-sufficient/purchasing authority
- Break down capable
- Justification for T1 crew, values at risk

Type 1 Interagency Hotshot Crews (IHC)

(Refer to NMG 30)

The RMA will continue to implement an out-of-area rotation for RMA Type 1 crews. Current guidelines are posted on the RMACC web page at http://rmacc.info/logistics/crews/ihc_oa_guidelines.pdf.

Type 1 crews will be notified if they are being held within the RMA due to drawdown levels and/or due to decisions by the RMACC Center Manager, RMCG Duty Officer, RMA Tactical Group, the RMA MAC and/or the NICC. The procedures in the Standards for Interagency Hotshot Crew Operations in regards to crew training will be utilized.

RMA Crew Listings

Start dates indicate the first day for the crew and not necessarily the crew's availability date. Each individual crew will notify their host dispatch center who will then notify RMACC when crew is available for assignments.

RMA TYPE 1 CREWS
Colorado, South Dakota, Wyoming
(Sorted Alphabetically)

CREW NAME	UNIT	DISP	LOCATION	START	END
ALPINE IHC (Off Sat-Sun)	RMP	FTC	Estes Park, CO	5/9	10/15
CRAIG IHC (Off Sun - Mon)	CRD	CRC	Craig, CO	5/2	10/4
PIKE IHC (Off Fri - Sat)	PSF	PBC	Monument, CO	4/28	10/15
ROOSEVELT IHC (Off Fri - Sat)	ARF	FTC	Ft. Collins, CO	5/2	10/15
SAN JUAN IHC (Off Fri - Sat)	SJF	DRC	Durango, CO	4/4	9/30
TATANKA IHC (Off Sat-Sun)	BKF	GPC	Custer, SD	5/5	10/4
WYOMING IHC (Off Mon - Tue)	BHF	CDC	Greybull, WY	5/2	10/15

RMA TYPE 2 IA CREWS
Colorado, Kansas, South Dakota, Wyoming
(Sorted by State)

CREW NAME	UNIT	DISP	LOCATION	START	END
DURANGO INTERAGENCY	SJF	DRC	Durango, CO	5/2	9/30
NORTHERN COLORADO # 1*	ARF	FTC	Ft. Collins, CO	4/1	10/1
NORTHERN COLORADO # 2*	ARF	FTC	Ft. Collins, CO	6/1	9/1
RIO GRANDE REGS	RGF	PBC	Monte Vista, CO	6/1	9/30
SAN ISABEL REGULARS	PSF	PBC	Salida, CO	6/1	9/30
YAMPA RIVER	CRC	CRC	Craig, CO	6/1	10/1
EAST DIVIDE	HOA	PBC	Horton, KS	5/31	10/31
MID PLAINS	QUR	PBC	Stafford, KS	6/1	8/31
BEAR MOUNTAIN	SDS	GPC	Rapid City, SD	1/1	12/31
BLACK HATS	SDS	GPC	Rapid City, SD	1/1	12/31
NORTH ZONE CREW 8	BKF	GPC	Spearfish, SD	1/1	12/31
BIGHORN BASIN #1	CDC	CDC	Worland, WY	6/15	9/30
DEVILS CANYON	WBD	CDC	Worland, WY	6/15	9/30
MED BOW-ROUTT IA	MBF	CPC	Casper, WY	6/18	10/1
NORTH ZONE CREW 1	BKF	GPC	Sundance, WY	1/1	12/31

*Northern Colorado # 1 & 2 – ordering units may be asked for equipment request numbers to support non-federal vehicles.

RMA TYPE 2 IA AND/OR TYPE 2 CREWS
Colorado, Nebraska, North & South Dakota
(Sorted by State)

CREW NAME	UNIT	DISP	LOCATION	START	END
COLORADO RIVER	WRF	GJC	Glenwood, CO	5/15	9/30
GUNNISON RIVER	GMF	MTC	Gunnison, CO	6/1	10/15
STANDING ROCK	SRA	GPC	Ft. Yates, ND	1/1	12/31
NEBRASKA CREW 1	NBF	GPC	Chadron, NE	1/1	12/31
NEBRASKA CREW 2	NBF	GPC	Chadron, NE	1/1	12/31
SOLDIER CREEK	NBF	GPC	Chadron, NE	1/1	12/31
WINNEBAGO	WIA	GPC	Winnebago, NE	1/1	12/31
BLACK HILLS INTERAGENCY	BKF	GPC	Custer, SD	1/1	12/31
BKF CREW 15	BKF	GPC	Nemo, SD	1/1	12/31
CHEYENNE RIVER	CRA	GPC	Eagle Butte, SD	1/1	12/31
GREAT PLAINS REGULARS	BKF	GPC	Rapid City, SD	1/1	12/31
LOWER BRULE	LBA	GPC	Lower Brule, SD	1/1	12/31
NORTH ZONE CREW 8	BKF	GPC	Spearfish, SD	1/1	12/31
PINERIDGE (2 Crews)	PRA	GPC	Pineridge, SD	5/1	10/31
ROSEBUD (2 Crews)	RBA	GPC	Rosebud, SD	1/1	12/31
YANKTON	YAA	GPC	Yankton, SD	1/1	12/31
NORTH ZONE CREW 1	BKF	GPC	Sundance, WY	1/1	12/31

This table represents crews that can only be mobilized either as a T2 IA crew or as a T2 crew depending on the crew qualifications and experience.

The Standing Rock Agency (SRA) is dispatched by GPC, and is located in both North and South Dakota.

RMA TYPE 2 CREWS
Colorado, South Dakota, Wyoming
(Sorted by State)

CREW NAME	UNIT	DISP	LOCATION	START	END
DFPC Crew 11* **	FTS	FTC	Fort Collins, CO	3/1	10/31
JUNIPER VALLEY CANON CITY*	PBS	PBC	Canon City, CO	3/17	10/31
JUNIPER VALLEY BUENA VISTA*	PBS	PBC	Buena Vista, CO	3/17	10/31
JUNIPER VALLEY RIFLE*	GJS	GJC	Rifle, CO	3/12	12/31
SISSETON	SIA	GPC	Sisseton, SD	1/1	12/31
SMOKEBUSTERS**	CPS	CPC	Newcastle, WY	4/1	12/31

* All Juniper Valley crews are sponsored by the Colorado State Department of Correction. They can respond anywhere in the RMA and adjacent GACCs if within 1 day's drive of Colorado. They can be self-sufficient if necessary but work best in a fire camp situation. When two of the three have been assigned, the availability of the third will be negotiated. Note: If the Juniper Valley – Rifle crew is being deployed as a suppression module, they should be ordered in ROSS as Overhead, Module, Suppression.

** All Smokebuster crews are sponsored by the Wyoming State Department of Corrections and can only be used in WY and SD-BKF. If they are deployed in 7 person squads, they should be ordered in ROSS as Overhead, Module, Suppression.

*** The DFPC Crew 11 is a State of Colorado crew comprised of DFPC and cooperating agency personnel. This crew may also be augmented with members from the BLM's Team Rubicon. Within Colorado, this crew is configured as a 5 person squad with a T4 engine.

RMA Camp Crews

A camp crew will normally consist of 10 people (crew leader plus nine) and will be dispatched with minimum supplies. There are no designated squad bosses on camp crews.

Ordering Considerations for Camp Crews which should be noted in Special Needs:

- Transportation needs
- Double lunched
- Adequate water
- May need to be subsisted while in travel status.

RMA CAMP CREWS
Colorado, Nebraska, South Dakota, Wyoming
(Sorted by State)

CREW NAME	UNIT	DISP	LOCATION	START	END
COLLBRAN JOB CORP	GMF	MTC	Collbran, CO	6/1	10/15
BLUE STEM PRAIRIE (2 crews) *	HOA	PBC	Horton, KS	6/1	9/30
NEBRASKA JOB CORPS (4 Crews)	NBF	GPC	Chadron, NE	1/1	12/31
WINNEBAGO	WIA	GPC	Winnebago, NE	1/1	12/31
BOXELDER JOB CORP (4 Crews)	BKF	GPC	Nemo, SD	1/1	12/31
CHEYENNE RIVER (2 Crews)	CRA	GPC	Eagle Butte, SD	1/1	12/31
LOWER BRULE	LBA	GPC	Lower Brule, SD	1/1	12/31
ROSEBUD	RBA	GPC	Rosebud, SD	1/1	12/31
SISSETON	SIA	GPC	Sisseton, SD	1/1	12/31
WINDRIVER (1 - 2 crews)	WRA	CDC	Ft.Washakie, WY	6/15	9/30

* Horton Agency Blue Stem Prairie camp crews will come with transportation.

CHAPTER 40

Chapter 40
Equipment and Supplies

Equipment/Supplies

The Rocky Mountain Area Interagency Coordination Center (RMACC) and the Rocky Mountain Cache (RMK) are responsible for coordinating movement of equipment and supplies within the Rocky Mountain Area (RMA). (See the National Cache Management Plan for more details.)

The National Cache for the Rocky Mountain Area (RMA) is located in Lakewood, CO, at the Denver Federal Center. A valid picture ID is needed to enter. If entry is after hours, you will need to provide RMK with the truck and driver information in order to be cleared through security ahead of time.

Units and Sub-units should maintain a local cache independent of the national cache system. The local cache should consist of an inventory of equipment and supplies available for Unit/Sub-unit firefighting personnel. Annual local cache inventory lists are due to RMK by April 1. (See the National Cache Management Plan for more details.)

Equipment/Supplies Mobilization

(Refer to NMG 40)
For initial response, dispatchers will follow the "closest forces" concept and utilize locally available resources.
For extended response, contracted resources awarded under the competitive solicitation process shall be mobilized using established dispatch procedures before at-incident agreements are issued on Federal Fires.

Requests for equipment and supplies will be ordered in two specific categories: "E" for Equipment and "S" for Supplies.

Examples of Equipment resources:

- National Contract Mobile Food Services (Caterers)
- National Contract Mobile Shower Facilities
- Rolling Stock – engines, water tenders, dozers, etc.
- Fire helitorches, probeyes, etc.

Supplies are identified as materials or goods not defined in any other resource category or service category.

Examples of Supply resources:

- Tele-Communication Items (National Incident Radio Support Cache (NIRSC) Systems/Kits)
- Incident Remote Automatic Weather Station (IRAWS)
- All National Fire Equipment System (NFES) Items
- Mobile Cache Vans
- Local purchases

Supply Ordering Procedures

All supply orders should be ordered on a Resource Order Form. All supply orders for NFES items that are ordered through dispatch channels to RMK must be processed via ROSS and followed by a confirmation telephone call.

A default FS Job Code should be set up in the incident screen in ROSS.

If NFES supply items are going to be picked up at RMK, select the "Will Pick Up at Cache" button from the New Request screen in ROSS. Complete the required information.

If items are to be shipped, refer to the following shipping information.

Shipping Information in ROSS:

The following information should be entered into the New Request Screen in ROSS:

- **Shipping Address**: Street address including zip code.
  - *Caution: Don't use the shipping instructions field. ICBS related.*
- **Contact information** for person(s) picking up the NFES item(s). (Name and number)
- Any special requirements (Hold and call, pick-up at XYZ air freight, local office closes at 1800, security needs to be notified, locked gate, etc.)
- **If critical info is put in Special Needs you must contact RMK by phone to alert them. They don't automatically see that field.**

Use the NFES Resource order print option for NFES supply items to view the resource order request.

Place Orders for these items with RMACC using NFES #'s	Place orders for these items with RMK	Dispatch places locally or with Buying Team:
Radios Kits	NFES Supplies	Non-NFES Items
Mobile Cache Vans		
IRAWS		

Dispatch Centers, Expanded Dispatch and Incident Management Teams (IMTs) will place all Supply Orders for NFES Catalog items with the RMK with the exception of National NFES resources listed in first column above.

Dispatch Centers will process supply orders via ROSS for Type 1 & 2 IMT fires from the onset until the IMT assumes management of the incident.

When assigned, delegated and authorized, Type 1 and 2 IMTs may place supply orders directly to the RMK. When supply orders are processed outside of ROSS they must be assigned/given a block of S-numbers starting with S-100,000 and ending with S-199,999 to be compatible with the ICBS-R system. (Interagency Cache Business System Re-engineering Project)

Type 1 and 2 IMTs will deal directly with the RMK for supply orders for NFES cache items needed to support the incident.

Dispatch Centers will process supply orders from Type 3, 4 & 5 incidents and fill what they can locally, then place the remaining items with RMK via ROSS.

The RMK cannot accept cache requests from a source other than the RMACC, Unit Dispatch Centers, Expanded Dispatch Offices, Type 1 & 2 IMTs or other National Caches.

If the RMK is unable to fill a request, the RMK may coordinate the order directly with the closest national cache, which can fill the order in a timely manner. Shipping Status information transfer to the ordering unit is the responsibility of the RMK.

IMT supply requests for non-NFES items (items not listed in the National Supply and Equipment Catalog) will be directed to the Buying Team, or to Dispatch if no Buying Unit is in place.

National Interagency Support Cache Ordering Procedures
(Refer to NMG 40)

NFES Items in Short Supply
(Refer to NMG 40)

Field Office Replenishment During Fire Season
(Refer to NMG 40)
If a unit uses their local cache on a fire, it shall be permissible to reorder from the RMK to restock the local cache.

If a restock supply order is being submitted by a local cache at the same time orders are being processed by an IMT, two separate orders should be submitted specifying each delivery point or location. The orders may be combined by the RMK for costs and efficiency on a single vehicle for delivery; however, delivery will be made to the separate locations.

When tools are ordered with the intent of replacing tools used on a fire, the used tools shall be shipped to the RMK to be refurbished. All costs incurred shall be charged directly to the fire. This method should help local units maintain a current up-to-date stock and assist with adequate turnover.

National Cache items shall not be sent as replacement and/or restock, except where like quantities are returned from the incident. No Accountable Cache items will be sent for restock against an incident order.

Field Office Replenishment Outside of Fire Season
(Refer to NMG 40)

Incident Replacement of NFES Items

(Refer to the NFES Catalog & NMG 40)

Replacement orders must be processed within 30 days of control of the incident. Incident replacement orders must be placed one per incident.

Prior to release from an incident, personnel may request replacement of equipment and supplies that were consumed, lost, damaged or rendered unserviceable on the incident.

The IMT or other approved incident personnel may authorize replacement of items at the incident if available, or by approving and using an Incident Replacement Requisition; OF-315/NFES 001300 for replacement of NFES items by the incident's servicing cache. Should the replacement of the approved items not be feasible prior to demobilization of the requesting resource, the incident's servicing cache will forward the request to the resource's servicing cache. Caches may only process requests for NFES items. Requests for non-NFES items should be requested on a separate approved incident replacement requisition to be processed by the home unit.

Responsibilities: The leader of the resource dispatched to each incident is responsible for ensuring their replacement requests are documented on the incident replacement requisition form.

Please refer to the current Interagency Incident Business Management Handbook Ch. 30 for procedures dealing with replacement of non-NFES supplies and equipment.

Incident Replacement: Type 1 and Type 2 Incidents

The incident Supply Unit Leader (SPUL) will be responsible for handling incident replacement requisitions when a Type 1 or Type 2 IMT is assigned. The SPUL approves replacement requests based on engine accountability sheets or other equipment inventory documents approved by the requesting resource's home unit. The use of the Incident Replacement Requisition Form (OF-315) is required.

If equipment and supplies are available at the incident for replacement, the request is filled at the incident supply unit.

If equipment and supplies are unavailable at the incident for replacement, AND the requesting resource is not being immediately demobilized, the Supply Unit will place a resource order for needed items through appropriate channels to the servicing fire cache. The order will be shipped to the incident and replacement will take place at the Supply Unit.

If equipment and supplies are unavailable at the incident for replacement, AND the requesting resource is being demobilized, an Incident Replacement Requisition will be completed by the Supply Unit and forwarded to the incident servicing cache. The servicing cache will then determine if the order should be forwarded on to the requesting resources geographic area cache for delivery.

Authorized approvals and signatures MUST be included on the requisition. For Type 1 and 2 incidents, these approvals are limited to: Incident Supply Unit Leader (SPUL), Logistics Section Chief (LSC), Support Branch Director (OPBD), Incident Commander or Agency Administrator or Representative.

The SPUL is responsible for approving the form and for providing an "S" request and NFES number for each item ordered. When the expanded dispatch issues the request numbers, they will be responsible for providing "S" request numbers.

Incident Replacement: Type 3, Type 4 and Type 5 Incidents

The hosting unit agency administrator or representative, such as the Fire Management Officer (FMO), will be responsible for handling incident replacement requisitions on Type 3, 4, and 5 incidents. The agency administrator or designated representative approves replacement requests based on engine accountability sheets or other fire equipment inventory documents approved by the requesting resource's home unit.

If equipment and supplies are available at the incident for replacement, the request is filled at the incident host unit.

If equipment and supplies are unavailable at the incident for replacement, AND the requesting resource is not being immediately demobilized, the hosting unit will place a resource order for needed items through appropriate dispatch channels to be inputted into the ROSS/ICBS interface to the servicing fire cache. The order will be shipped to the incident and replacement will take place at the host unit.

If equipment and supplies are unavailable at the incident for replacement, AND the requesting resource is being demobilized, an Incident Replacement Requisition will be completed by the host unit and forwarded to the local dispatch unit for input into the ROSS/ICBS interface and sent to the servicing cache. The servicing cache will then forward to the requesting resources geographic area cache if applicable.

Type 3, 4 and 5 incident approvals are limited to the Agency Administrator or Representative (i.e. FMO).

Incident Replacement: All Types

Replacement orders must be processed within 30 days of control of the incident.

The incident's serving cache may forward completed requisitions to the requesting unit's geographic area cache for processing.

If RMK is unable to fill the request (i.e. does not stock item), the RMK will forward the request to the closest cache that does stock the item for processing.
Incident replacement requisition and resource order request will provide replacement authorization and can be submitted to RMK via ROSS along with an OF-315 (Incident Replacement Requisition Form). Notification should be made to RMK by phone regarding this replacement request.

Incident to Incident Transfer of Equipment and Supplies

(Refer to NMG 40)

National Incident Radio Support Caches (NIRSC)
(Refer to NMG 40)
The RMACC will annually preposition at RMK two NIRSC starter systems (NFES #4390) from May 15 - Oct 15 and additional systems as needed.

The RMACC will order the prepositioned starter system(s) on the annual Radio Kit Staging/Preposition Supply resource order. When the NFES #4390 is transferred/committed to an incident, the RMACC will order a replacement starter system(s).

All requests for prepositioning NFES #4390 systems will be ordered under one suppression code. This charge code will also be used for backfill requests once a prepositioned system is assigned. This code is to be only used for the prepositioning of NFES #4390 systems.

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 (COML) will be required for all incident assignments of this system.

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

All radio supply orders are sent direct to the RMACC.

All radio kit resource orders require **"Bill-To"** information entered into the Special Needs area on the New Request Screen in ROSS. Where possible, the names and contact information of the pertinent parties should also be included.

The following information should be entered into the New Request Screen in ROSS:

- **Shipping Address**: Street address including zip code
- Contact information for person(s) picking up the NFES item(s). (Name and number)
- Any special requirements (Hold and call, pick-up at XYZ air freight, local office closes at 1800, Security needs to be notified, locked gate, etc.)

Use the NFES Resource order print option for NFES supply items to view the resource order request.

A default FS Job Code should be set up in the incident screen in ROSS.

Radio Mobilization
(Refer to NMG 40)
The NIRSC radio systems will generally be shipped via charter or commercial air if being shipped directly from NIRSC.

Radio Demobilization
(Refer to NMG 40)
The NIRSC radio systems will normally be released/demobilized back to Boise directly from an incident. Dispatch Centers shall coordinate with RMK/RMACC on the release and required transportation.

Incident Remote Automatic Weather Stations (IRAWS, NFES #5869)
(Refer to NMG 40)

Mobile Cache Support Vans (RMK Specific)
(NFES #8602)
There are nine (9) mobile cache vans available in the RMA for use on RMA incidents. A RMK equipment resource order will be processed for the initial tractor transport of the cache van to prepositioned locations.

Cache Vans belong to RMK when located either at the RMK or at preposition locations and all cache van contents are considered part of the RMK inventory. All cache vans will be refurbished at the RMK or by qualified Fire Cache personnel at the pre-position locations to ensure cache vans are ready and contents meet NFES and RMA standards.

The RMK cache manager is responsible for annual site inspections to ensure cache vans are ready and contents meet NFES and RMA standards.

Should an incident need a mobile cache van, the order is placed on a ROSS supply order and sent to the RMACC, who will coordinate with the RMK to fill the order.

An Equipment Order will be processed for a truck to transport the van to the incident or back to RMK. It will be coordinated with the RMK by the RMACC and the hosting dispatch.

Costs for transport, unscheduled maintenance, or abnormal wear of cache vans will be charged to the benefiting incident. Annual preventative maintenance will be charged and prorated to a pre-designated account to spread the costs equally against all activities. Preventative maintenance may include complete inspections, lubrication, and parts replacement on an as needed basis.

The incident benefiting from the cache van will be responsible for charges of the cache van to the incident, driver standby, and return travel to RMK.

Arrangements and cost of transportation of cache vans and supplies back to RMK are the responsibility of the receiving incident.

Prior to making local transportation arrangements for return of a cache van to RMK, please contact the RMK/RMACC to see if a tractor is already in the general area delivering a van; or if other cache vehicles are in the area that could possibly be available to carry a return load.

Cache vans will be emptied immediately at the incident and returned to the RMK for restock in preparation for the next incident, unless negotiated and approved with the RMK/RMACC.

When determining date and time needed, ensure that appropriate lead time is allowed to have team personnel or an agency representative in place at the delivery point to unload and sign for the contents.

Ordering Considerations for the RMK Mobile Cache Support Vans which should be noted in Special Needs:

- Transportation: A support equipment order may be required.
- Order needs to be placed with the RMACC
- Type 3 incidents may be issued a mobile cache support van if the appropriate qualified logistical personnel are assigned to the incident and it is coordinated with the RMK and the RMACC.

Mobile Cache Support Van (RMK Specific) Locations

The RMK has nine mobile cache vans available for use in the RMA. Six of them will be pre-positioned at the following locations:

Dispatch Center/Cache	Location	City/State
GPC	Black Hills National Forest	Custer, SD
CDC	Wind River Agency	Ft. Washakie, WY
GJC	Grand Junction Air Center	Grand Junction, CO
DRC	Los Pinos FPD	Ignacio, CO
CPC	Wyoming High Plains BLM	Casper, WY
PBC	Pueblo Airport	Pueblo, CO

Van contents should be listed in the National Fire Equipment Catalog under NFES #8602. For further information refer to the RMK web site (http://rmacc.info/rm_cache.php) for a complete packing list for the #8602 (RMK Specific) cache van, which also includes the NFES #2069 items.

Equipment Ordering Procedures

Equipment orders will be processed via ROSS as available through normal dispatch channels.

Engine Staffing

RMA 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.
Document the names of the engine staff if the engine is not rostered in ROSS.
(Per the ISROG, all agency engines will be rostered.)

Although national standard staffing for most engines is two personnel, all engines orders shall specify 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 principles of LCES (Lookouts, Communication, Escape Routes and Safety Zones) are 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.

Any deviations from these staffing standards will require approval and documentation and should be requested/identified in the special needs block of the resource order.

Ordering Considerations for Engines which should be noted in Special Needs

- All Wheel Drive (includes four wheel drive)
- Foam Proportioner
- Additional Personnel/Chase Rig needed and/or approved

Strike Teams: Engines

Only orders for single engines will be processed through dispatch channels. Strike Teams and Task Forces will be formed at the local level. When strike teams are ordered, the local dispatch office will be responsible for assigning individual "E" request numbers to each of the five engines making up the team. Dispatch will verify if a Strike Team Leader (STEN) is needed. If a STEN is needed, Dispatch will assign an “E” and an “O” request number.

Engine Type 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
Hose (feet) 2 ½ inch 1 ½ inch 1 inch	 1200 500 -	 1000 500 -	 - 1000 500	 - 300 300	 - 300 300	 - 300 300	 - - 200
Ladder per NFPA 1901	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
NWCG Personnel (minimum)	4	3	3	2	2	2	2
RMA Personnel (minimum)		3	3	3*	3*	3*	3*

*RMA engines not meeting the minimum personnel standard for orders within the RMA must receive prior approval from the receiving unit. This includes agencies that are sending Hummer Brand Type 6 Engines which only hold only 2 passengers and may require a chase vehicle to be sent to meet the 3 personnel minimum.

Water Tender Staffing

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.

Personnel shall meet the qualification requirements of NIMS Wildland Fire Qualification System Guide, PMS 310-1.

Ordering Considerations for Water Tenders which should be noted in Special Needs:

- All-Wheel Drive (includes four wheel drive)
- High Pressure Pump (250 psi at one half flow of Type)
- Foam Proportioner
- Compressed Air Foam System (CAFS) with minimum 40 cfm Compressor
- Additional Personnel, or if personnel must be line qualified
- Gel-Capable

Water Tender Types Matrix

	Water Tender Types				
	Support			Tactical	
Requirements	**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*

*Contract water tenders will be staffed according to contract specifications.

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

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

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

Potable Water Tender

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

Portable Retardant Base

There are currently 3 national contracts for mobile retardant bases. There are different sizes of portable/mobile retardant bases, depending on the size and number of aircraft to be supported.

Portable/mobile retardant bases may be ordered directly by the local user under the provisions in the contract. They can be ordered in ROSS as Aircraft, Service-Aviation, Service-Mobile Retardant Base, or Equipment, Miscellaneous, Retardant Plant-Portable. If the order goes through the RMACC, please order as Equipment.

Agency/Unit	Location
Wind River/Bighorn Basin District	Worland, WY

(This BLM Mobile Retardant Trailer can be set up at any airport with a runway length greater than 5000 ft. and single axle weight threshold of over 17,500 lbs.)

Ordering Considerations for Portable Retardant Base which should be noted in Special Needs:

- What type of resource do you need to support, and how many and for how long? (Airtanker, SEATs, Helicopters, Ground Resources)

Specialized Equipment

Helitorch (Aerial Drip Torch)

Agency/Unit	Location
High Desert District BLM	Rawlins, Wyoming
Shoshone National Forest	Cody, Wyoming
Upper Colorado River Mgmt. Unit	Rifle, Colorado

Aerial Ignition Devices (Plastic Sphere Dispensers)

Agency/Unit	Location
*Black Hills National Forest	Custer, South Dakota
*Grand Junction BLM	Rifle, 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

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

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

Terra Torch

Agency/Unit	Location
*High Desert District BLM	Rawlins, Wyoming
*High Desert District BLM	Rock Springs, Wyoming
*Southern Ute Agency	Ignacio, Colorado
* Northwest Colorado Fire Mgmt.	Craig, Colorado

* Must be accompanied by a qualified operator 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
*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

The 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 the RMACC 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

Heavy Truck Transportation

The RMACC 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.

Federal	Location
Rock Springs BLM (1)	Rock Springs, WY
Medicine Bow NF (1)	Laramie, WY
San Juan National Forest (2)	Durango, CO
Wind River Agency	Ft. Washakie, WY
Cooperators	**Location**
CO Division of Fire Prevention & Control (1)	Ft. Collins, CO
WY State Forestry (2)	Cheyenne, WY

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

National Contracts - Mobile Food Services and Mobile Shower Facilities
(Refer to NMG 40)
The NICC has standard national contracts for catering services. Orders for food service and shower units that are on national contract will be placed on an Equipment order through appropriate channels to the NICC. The RMK, dispatch center, or local offices will not place orders directly to national contract food service/shower units.

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.

Orders for National Food Service and Shower Units require a physical address with zip code in special needs and/or reporting instructions in ROSS.

When necessary, as determined by the incident, a Contracting Officer's Technical Representative (COTR) may be ordered through the RMACC.

Ordering Considerations when ordering Mobile Food Services (Caterers):

- An order for a national catering service must be accompanied by a completed Mobile Food & Shower Service Request form. (see contract language)
- The government is responsible for providing potable water and the removal of gray water.

Ordering Considerations when ordering a Shower Unit:

- Requests for Shower Facilities require the approximate number of personnel to service, estimated duration, and date/time the showering is to begin. Put in Special Needs.
- Determining size: Large capacity (12+ shower heads) or small capacity (4 – 11 shower heads) Put capacity needed in Special Needs. Rule of thumb for shower unit production: 75 persons per shower head.
- A completed Mobile Food & Shower Service Request form may be required before the order can be submitted to the NICC. (see contract language)
- The government is responsible for gray water removal.

Mobilization
(Refer to NMG 40)

Reassignments
(Refer to NMG 40)

Demobilization
(Refer to NMG 40)

Contract Resources

Definitions

Cooperators: An agency with which resources are shared as authorized in a cooperative agreement. (Examples: Fairmount Fire Protection District, Natrona County, Maybell Volunteer Fire Department.)

Contractors: Private sector personnel, vendors, or businesses contracted to provide goods and services to a government agency.

Types of Solicitations and Agreements:
Contractors are signed up pre-season competitively on an Incident Blanket Purchase Agreements (I-BPA).

Competitive:
Competitive pre-season I-BPAs are awarded using a Best Value Award process and by Choosing by Advantages (CBA) methodology to determine the dispatch priority. Award is based on price, acceptable past performance, qualified personnel and minimum equipment standards. The CBA determines the priority dispatch order for the resources on the Dispatch Priority List (DPL) based on various equipment and/or personnel attributes. VIPR (Virtual Incident Procurement) is the current program used.

At-Incident:
At-incident EERAs are used to contract resources not available through the I-BPA competitive process due to unavailability or exhaustion of the resources on the DPL and other established dispatch ordering channels.

At-incident EERAs are valid only for the duration of the incident for which they were signed. Once the incident releases the contracted resources, the agreement is no longer valid.

DOI EERAs that may still be valid from previous years can still be used for local initial attack. They may also be used for extended attack/large fire support after exhausting resources on the DPL.

The RMA Fire I-BPA and Incident Only/EERA Equipment Guide is a good reference and can be found at the Incident Business Management link found at the RMACC website (http://rmacc.info/incident_busn_management.php).

Contractor Performance Ratings
Contractor performance ratings are required on all equipment. Contractor performance rating forms are attached to their awarded agreements. Forward all completed forms to the signing Contracting Officer.

Dispatch Priority:
Dispatch priority will be given to contracted resources under competitive agreement for all extended attack incidents or planned support needs (severity).

Dispatch priority for contracted resources does not preclude the government from using any Agency or Agency Cooperator owned resources for initial attack or extended attack/large fire support before ordering contracted resources under agreement.

The guiding principle in dispatching resources to an incident will be closest forces to meet the date/time needed which can be determined using MapQuest, Google maps, etc., and the contract requirement of 45 mph. See contract for further information.

Critical Documentation
All contacts and actions will be documented in the appropriate system of record (CAD, ROSS or log). Key items to document include point-of-hire, driver's name and contact info; names and positions for all personnel including chase vehicles, last 5 digits of the VIN # and any vehicle/equipment information not included in the ROSS resource item.

Dispatch Priority Lists (DPLs)
Dispatch Priority Lists are generated for all contracted resources awarded under competitive solicitations. Each contracted resource has an identified Host Dispatch Center or Geographic Area Coordination Center (GACC).

Host Dispatch Centers will follow the established DPL ranking order when ordering available contracted resources.
http://gacc.nifc.gov/rmcc/logistics/equipment_supplies/VIPR_Ordering_Guide.pdf.

Resources contracted competitively must be statused "available" in ROSS in order to use the DPL rankings. This pertains to Resource Item (RI) resources only; all Service Items (SI) - Fill with Agreement resources, require manual communication between vendor and home dispatch office to establish availability.

For more information see the RMA VIPR Ordering Guide at the RMACC website (http://rmacc.info/logistics/equipment_supplies/VIPR_Ordering_Guide.pdf) and the National Interagency Dispatch Standard Operating Guide for Contracted Equipment/Resources found at http://www.nifc.gov/nicc/logistics/references.htm.

If all available resources on the DPLs are depleted within the Host Dispatch Center, orders will be placed utilizing established dispatch procedures.
State agencies may have varying procedures and authorities for hiring private equipment. Buying Teams involved in hiring equipment for incidents are encouraged to consult agency-specific guides or appropriate State personnel.

In the RMA, all hiring of equipment/services from DPLs will be done by the hosting dispatch office.

In the event that VIPR equipment services have been consolidated into one or more hosting dispatch centers, ROSS equipment selection areas will remain open for all RMA dispatch centers to those designated host dispatch centers.

Contract Resources and the Resource Ordering and Status System (ROSS)
All requests for contracted resources will be placed in ROSS using established ordering procedures. At-incident agreements should be filled in ROSS with the "Fill with Agreement" function, using established naming conventions and data entry standards.

Equipment/Supplies Demobilization (Refer to NMG 40)
When demobilizing contracted equipment, vendors awarded Incident Blanket Purchase Agreements (I-BPAs) as a result of competitive solicitations, shall be given priority to remain on the incident over resources with At-Incident Agreements, unless the IC determines it necessary to deviate based on a specific incident need or objective.

Equipment will be released to home unit on the order and request number used to mobilize those resources. Equipment release information must be promptly relayed through established ordering channels if outside normal business hours.

After coordinating with the RMK/RMACC, return NIRSC command and logistic kits to Boise immediately after determination of no further need. Ship them directly to Boise via airfreight or charter aircraft or transport them to the nearest Interagency Support Cache, which will forward them to Boise.

All equipment and supplies must be released when surplus to incident needs. The Incident Commander and the Logistics Section Chief are responsible and accountable to ensure the manifesting and return of all items. When management of the incident is turned back to local unit from the Incident Team, all remaining supplies and equipment will be hand receipted to local organization.

Return of all capitalized equipment shall be a coordinated effort through established dispatch/cache channels to ensure proper credits and to clear records. Property items may be returned direct to home unit from the incident. The owning unit is responsible for refurbishing returns with costs being charged to the incident.

All mechanized equipment and fuel containers will be EMPTIED and purged prior to returning to fire cache, as per Hazmat requirements.

Prior to demobilization, the Logistics Chief is responsible for coordinating with RMK Cache Manager for Hazmat.

Ordering a Cache Demobilization Specialist (CDSP) is strongly recommended for all Type 1 and 2 incidents and as deemed necessary.

1 *This page intentionally wishing you good reading.*

CHAPTER 50

Chapter 50
Aircraft

Aircraft Operations

Refer to NMG Ch. 50 for additional information in most sections.

Aviation resources are used for preparedness activities, supporting emergency incident operations, burn area rehabilitation projects, resource management project work, and administrative movement of resources. Requests for aircraft will be for official use and within Agency policy.

Reminder: Most aviation resources are considered Initial Attack (IA) resources and are subject to diversion at any time for higher priority incidents based upon consideration of safety and values at risk. Orders for these aviation resources should be based on actual current incident needs.

High Density Altitude Aviation Operations

For All Personnel: Flight operations conducted in the Rocky Mountain Area (RMA), especially parts of Colorado and Wyoming, have potential for high density altitudes (DAs) in both fire and general aviation operations.

At high density altitudes, expectations of performance for both rotor and fixed wing aircraft may not align with reality. All personnel need to understand that at high density altitude the limitations of the aircraft may cause a departure from the normal performance expectations of aircraft at lower elevations.

These changes may include the following:

- The amount of payload will be reduced.
- The speed of delivery will be higher.
- In the case of bucket operations, a reduction in water volume will make it difficult to penetrate any significant canopy. As a result of this volume reduction, the water/retardant will be more susceptible to wind and thus can affect the accuracy of drops.
- High density altitude and variable winds are going to greatly reduce the helicopters ability to slow down to below Effective Translational Lift (ETL) airspeed. Requesting hovering spot drops shall be avoided.
- Aircraft performance must be considered when ordering aviation resources for anticipated high density altitude missions.
- When ordering aircraft from dispatch, ensure you incorporate high density altitude conditions into the request. In special needs in ROSS, request the term HIGH PERFORMANCE aircraft, regardless of type. Also include the operating altitude and operating temperature in special needs.
- Any questions to specific air frames, feel free to direct your calls to:
    - Jim Lawson, USFS R2 Helicopter Operations (HOS) 719-338-3917
    - Mike Amicarella, DOI Helicopter Inspector Pilot (HIP) 303-888-1505.

Pilot briefs should include discussions regarding the following:

- Aircraft capability is negatively affected by the higher density altitudes that are likely to be encountered in the RMA.
- The aircraft's lifting capability is not only affected, but the aerodynamics in general is less responsive. The pilots must anticipate (stay ahead of) the aircraft flight control inputs.
- Pilots need to keep the aircraft (if tanked), or the bucket, a minimum of 50 feet above the canopy.
- Pilots need to remain above ETL at all times, avoiding hovering spot drops.
- Mitigation measures

Definition of Effective Translational Lift (ETL)

ETL is a transitional state present after a helicopter has moved from hover to forward flight. This state provides extra lift, most typically, when the airspeed reaches approximately 16-24 knots, *but is present with any horizontal flow of air across the rotor*, and therefore can be present without any forward motion of the aircraft, given prevailing wind conditions. As a result, the tail rotor also becomes more efficient due to the wind bubble that is formed around the helicopter from progressively less turbulent air.

Aircraft Mobilization

All aircraft orders should be coordinated through the local dispatch center. Response times are the most critical aspect of IA resources. The target off-time requirement of 15 minutes without compromising pre-flight and flight planning requirements should be adhered to for tactical aircraft.

The use of Air Attack and/or Lead Planes/Aerial Supervision Module (ASM) is critical for safe and effective support and should be ordered. Refer to the Aerial Supervision Chart found in this chapter.

Pilots shall not be dispatched or contacted after end of shift (typically 2000 – 0600) to ensure crew rest requirements of 10 hours of uninterrupted rest are met. Orders for charter aircraft should not be placed with vendors during these hours as well, unless they have a company dispatcher available.

Pilots must ensure duty limitations are being met per the Interagency Interim Flight & Duty Limitations which can be found in the Redbook Ch. 16.
(Interagency Standards for Fire & Fire Aviation Operations)

Use of the RMA Aircraft Dispatch Kneeboard format or equivalent is the required method of mobilization of tactical aircraft for initial attack followed up by a ROSS resource order as soon as possible. See Ch. 80 for the RMA Aircraft Dispatch form.

Initial Point (IP): A reporting location for aircraft, outside of the Fire Traffic Area (FTA), clearly identified by the aerial supervisor (ATGS or ATS). It may be Latitude/Longitude, geographic feature, cardinal direction, fire flank, and includes an altitude. Location may be used for a holding pattern prior to FTA entry.

Ordering Tactical Aircraft

Orders for tactical aircraft shall include the following minimum information and will be communicated to the pilots:

- Latitude / Longitude (degrees/minutes)
- Bearing and Distance (nm) to nearby VORs, airports/bases
- Frequencies
  - Flight Following – with dispatch
  - Air to Air - with contact call sign if known
  - Air to Ground - with name of ground contact if known
- Any Hazards in the area - includes "hot" MTRs, powerlines, towers, etc.
- Other aircraft in the area and/or mobilizing to the incident
  - Notification should be made to neighboring dispatch if response is within 5 miles of their boundaries. Refer to local dispatch boundary agreements.
- Reload Base if applicable
- Name of ordering Dispatch Center
- Type of Resources on order, if any – good situational awareness for ATGS
- TFR – yes or no

The RMACC is ultimately responsible for the movement/tracking of all national aviation resources across RMA dispatch center's boundaries and within the Geographic Area.

Centers must notify the RMACC of the commitment and release of national and area resources. (Refer to NMG/RMG 10)

Local Airport Operations

RMA Ramp Operations: When fire related aircraft activity is anticipated to impact any airport, appropriate airport overhead are required to manage operations (i.e., Airport Liaison, Fixed Wing Base Manager (FWBM), Ramp Manager (RAMP), etc.)

It is the responsibility of the assigned airport personnel (i.e., Airport Liaison, FWBM, RAMP, etc.) to keep local dispatch promptly informed of all incident aircraft activity. This includes aircraft arrivals, departures, resources status, personnel, and all other pertinent information. Simultaneously, dispatch will communicate and coordinate with the assigned airport personnel as needed.

Prioritizing Incidents

All requests will be processed in accordance with the standard fire priority criteria (Refer to NMG/RMG 10).

Prioritization is a key factor in rapid response and aggressive tactics. Initial Attack takes priority. However, when competition exists for tactical aircraft, every request must specifically identify the Values at Risk as identified in the NMG/RMG 10.

Aircraft Demobilization

When an incident enters into extended response phase, every effort should be made to re-establish Initial Attack resources. Refer to RMG 10 for Release Priority Guidelines.

Flight Management Procedures
(Refer to NMG 50)

Sterile Cockpit:
Upon takeoff and landing, pilots must concentrate on Federal Aviation Administration (FAA) communications and traffic awareness. Dispatch communications may remain unanswered during these operations. Contact will be established/re-established once practical and safe. Sterile cockpit duration may vary depending on airspace and communications complexity. In general, count on five nautical miles as a sterile cockpit guideline. **Dispatchers should refrain from attempting contact during this time.**

Many federally-procured aircraft by contract must be equipped with Automated Flight Following (AFF). AFF can mitigate tracking issues during sterile cockpit operations. Dispatchers should be thoroughly familiar with their Agency's Aviation Operation Plans to facilitate efficient and safe dispatch of aircraft.

For Helicopters, sterile cockpit also occurs after the helicopter pilot has made radio contact with ground personnel for current ground conditions prior to landing or initiating mission operations. There should be no talking in the aircraft during takeoff and /or landing unless the pilot requests input on clearance or hazards.

Flight Manager
(Refer to NMG 20)

Aircraft Flight Request/Schedule Form:
The DOI Flight Request/Schedule Form (**Form 9400-1a May 1993**) has been adopted as the national interagency standard dispatch form for all point-to-point flights. The completed form will be forwarded to all the affected parties. This form should be filled out accurately and thoroughly, as it contains critical information that may be needed in emergency situations. (# of passengers, pilot name(s) and contact #, color of a/c, etc.) As a reminder, do not count the pilot as a passenger in the passenger block.

Types of Flights
Point-to-Point: Point-to-Point flights originate at one developed airport or permanent helibase, with a direct flight to another developed airport or permanent helibase. These types of flights are sometimes referred to as "administrative" flights. The pilot and aircraft must be agency-approved (carded) for these point-to-point flights.

A point-to-point flight is conducted higher than 500 feet above ground level (AGL) except for takeoff and landing. Flight following and tracking is normally accomplished via an FAA Flight Plan, (Visual Flight Rules-VFR or Instrument Flight Rules-IFR) filed by the pilot, along with the 9400-1a form, and follow-up phone calls to the appropriate dispatch center when flights commence and/or terminate. Pre-positioning of tactical aircraft falls into this category.

Mission Flights: Mission flights are flights that do not meet the definition of a point-to-point flight. These types of flights are often referred to as "tactical" flights.

A mission flight requires work to be performed in the air, such as retardant or water delivery, fire reconnaissance, smokejumper delivery, sketch mapping, or through a combination of ground and aerial work, such as delivery of personnel and/or cargo from helibases to helispots or unimproved, undeveloped landing areas, rappelling or cargo let-down; horse herding, insect and disease detection flights, infrared mapping, GIS mapping or orthophoto flights.

Some mission flights require the use of personal protective equipment (PPE) and some are performed below 500 feet above ground.

The pilot and aircraft must be agency-approved (carded) for the mission being performed.

Flight following and tracking is normally accomplished via AFF and through "ops normal" radio transmissions to dispatch or qualified incident personnel (i.e. Air Attack Group Supervisor (ATGS), Air Base Radio Operator (ABRO), Helicopter Coordinator (HLCO), etc.) on an approved/predetermined interval (normally 15 minutes).

Mission flights must be conducted according to the requirements and parameters of the specific local agencies Unit and State/Regional Aviation Management Plans, which could include Project Aviation Safety Plans (PASP) as needed.

Flight Plans and Flight Following

The intent of this section is to ensure that adequate flight following is maintained throughout the flight so that appropriate action can be taken in the event of a mishap. Flight following must be properly established and consistently maintained at all times to be of any value to any user.

Agency flight plans are the responsibility of the originating dispatch office and documented on a Flight Request/Flight Schedule or an Aircraft Resource Order for mission flights. Flight Following is the responsibility of the originating dispatch office and will remain so until transferred through a documented, positive handoff. Flight following may require coordination with adjoining dispatch centers in the flight path. If the NICC/RMACC is providing flight following for aircraft traveling across country, a flight plan should be forwarded on to the dispatch centers that may be involved, in the event they need to assist in search procedures for overdue aircraft.

The flight following dispatch office shall be continually staffed while an aircraft is airborne during tactical or mission resource flights. Confirmation of an aircraft's arrival at a specified destination is required to ensure that a flight has been completed safely. It is the pilot's responsibility to close out a flight plan. If an aircraft is overdue, it is the receiving dispatcher's responsibility to initiate aircraft search and rescue actions. Flight Following problems are documented through the SAFECOM system.

FAA Flight Plans and Flight Following

All flights conducted under FAA Instrument Flight Rules (IFR) are automatically provided FAA flight following. Administrative flights conducted under Visual Flight Rules (VFR) flight plans require the pilot to file a flight plan with the appropriate FAA facility. The pilot must request FAA flight following. Air Traffic Control (ATC) may or may not provide it. It is the pilot's responsibility to confirm with dispatch which type of FAA flight plan/flight following will be used. The pilot will close out the flight plan with the FAA once the flight is completed.

FAA flight plans and flight following are generally used for point-to-point flights and the pilot or flight manager will contact the originating dispatch center with an estimated time of departure (ETD), estimated time enroute (ETE) and will close out with the designated dispatch center with the actual time of arrival (ATA) to accomplish resource tracking.

Agency Flight Following

For mission flights, there are two types of Agency flight following: Automated Flight Following (AFF), and Radio Check-in.

AFF is the preferred method of agency flight following, and will include an initial Radio Check-in. If the aircraft and flight following office have AFF capability, it will be utilized. Periodic radio transmissions are acceptable when utilizing AFF.

Radio Check-in Flight Following requires verbal communication via radio every 15 minutes. The dispatcher will log the aircraft call sign, latitude, longitude, and heading. Agency flight following is used for all mission flights. Helicopters conducting Mission Flights shall check-in prior to and immediately after each takeoff/landing per Interagency Helicopter Operations Guide (IHOG) 4.II.E.2.

For point-to-point flights, AFF flight following may be used as well. The pilot or flight manager will, at a minimum, contact dispatch prior to the flight with an ETD, ETE, fuel on board (FOB), souls on board (SOB), and will close out with dispatch once the aircraft is on the ground.

Flights that are to be conducted at low level or in areas where radio communications are inadequate are expected to notify the monitoring station of their location, intentions, and when to expect the next check-in. In these instances, a flight may not be out of radio contact for more than thirty minutes. Pilots will monitor assigned frequencies at all times. Pilots must notify dispatch when they have established positive communications with an incident and are switching to incident flight following.

When airtankers, lead planes, smokejumper aircraft, and helicopters establish two-way radio communications with an Air Tactical Group Supervisor (ATGS), they generally transfer their flight following to the ATGS. ATGSs are expected to be able to give status reports on all aircraft under their control. Once released by the ATGS, pilots must resume flight following with dispatch with a positive hand off. This should be well documented.

Responsibilities of the pilot include the following:

- Flight following on a 15-minute check-in interval if AFF is unable to be used. The dispatcher is required to record the information and in the event that a check-in is not received, an attempt to contact the pilot on the appropriate frequency will continue. In the event that two-way radio communications cannot be reestablished, the dispatcher will initiate the initial phase of the Interagency Aviation Mishap Response Guide.
- The following information should be provided and documented for flight following:
    - Time of check-in
    - Current position of aircraft (lat/long, geographical landmarks, etc.)
    - Direction of travel (unless orbiting or consistently working in one area)
    - Any changes in flight plan or status
- For Special Use missions outside of fire suppression and before any flight is initiated, the dispatcher should have a full understanding of the purpose of the mission, destination, expected duration, identity of passengers, type and quantity of cargo, check-in intervals, communications plan, and the crash rescue plan. (This is accomplished by providing the dispatch center with a copy of the Project Aviation Safety Plan (PASP) and/or the inclusion of dispatch in the pre-mission briefing.)
- Two-way radio communications and/or automated flight following must be maintained with all aircraft, which the dispatcher has agreed to flight follow, throughout the duration of the flight. See AFF requirements below.

National Resource Tracking / Flight Following: 800-994-6312
RMA Resource Tracking / Flight Following: 800-494-2073

Automated Flight Following (AFF) Requirements & Procedures

AFF does not eliminate the requirement for the pilot/flight manager to coordinate flight following with the scheduling dispatch office. Preflight communications should always be made and the appropriate flight following procedures agreed upon between pilot and dispatch.

Pilots must monitor at least one predetermined radio frequency as an alternate means of flight following in the event the AFF system fails in the aircraft or in dispatch, or in case dispatch needs to cancel a mission, divert that aircraft to a higher priority incident, or relay other critical information regarding hazardous weather, new Temporary Flight Restrictions (TFRs), etc.

Additional information about AFF can be found at: https://www.aff.gov/.

Aircraft Accident/Incident Reporting

Refer to current local unit emergency procedures.

Overdue and Missing Aircraft

If an aircraft fails to arrive at its destination or fails to check-in on the prescribed interval, initiate the Interagency Aviation Mishap Response Guide.

Forest Service Owned/Leased Aircraft

Costs

Aircraft	Call Sign	Flight Rate/Hour	FOR/Day	Speed
Cessna 206	N126Z	*$338.00	*$50.00/day	130 knots/hr.
King Air 90GT	N64GT	*$652.00	N/A	250 knots/hr.

*Rates are subject to change.

Fixed Operating Rate (FOR) is charged for all non-Forest Service Administrative flights with the C-206.

All FOR charges are on a whole day basis unless they are split among multiple users on that day. Pilot overtime will be charged to the customer's job code if the duration of the pilot's normal duty day is exceeded due to customer's scheduling.

The King Air is an Exclusive Use contracted resource and does not have FOR fees. Additionally, the daily availability is paid by the WO so only the hourly rate applies.

Use and Capabilities

Make/Model	C-206	King Air 90GT
Use	Recon, Transport, Photo, Air Attack	Recon, Passenger Transport, Air Attack, Lead/ASM
Fuel Type	Avgas	Jet-A
Range (w/reserve)	3.5 Hours	4.5 hours
Max. Take-off Weight	3,600	10,100
Runway	Hard surface 2,000 ft. min.	3,000
Passengers	4-5	6
Baggage	120 lbs	Depends on # of pax
Ground Power Unit (less than 500/100 AMPs)	Not Required	Not Required

State Owned Aircraft

Colorado Division of Fire Prevention and Control (DFPC)

Multi-Mission Aircraft (MMA)

The Colorado Multi-Mission Aircraft (MMA) generally operate under FAA flight plans and FAA flight following. They have T1 Avionic capabilities and are active on AFF so can be agency flight followed if necessary. Aircraft and pilots are interagency carded.

Use and Capabilities

Make/Model	**Pilatus PC-12**
Call Signs	N327SF & N328SF
Use	Recon, Photo, EO/IR, Detection
Fuel Type	Jet-A
Range (w/reserve)	5 Hours
Max. Take-off Weight	9920 lbs.
Runway* (accelerate-stop distance)	*4700’
Passengers	5
Baggage	Depends on # of pax
Ground Power Unit (less than 500/100 AMPs)	Not Required
Avionics Typing	1
Cruise Speed	250 knots/hr

*Varies with temperature and altitude.
The above listed runway distance reflects 5500’ MSL at 30C and 9500 lbs.

Colorado Multi-Mission Aircraft are requested in the following manner:

1. For all requests for **in-Colorado-state** reconnaissance, orthophoto, EO/IR, and/or detection flights:
   - For State, County, Fire Department and other non-federal agencies: MMA requests shall be placed to the Denver Regional Colorado State Patrol (CSP) Dispatch.
   - For Federal agencies located within Colorado State: MMA requests shall initially be placed to the local Colorado Interagency Dispatch Center, who will then place the order to the Denver Regional Colorado State Patrol (CSP) Dispatch.

   Contact CSP Dispatch via the State Emergency Operations Line (303-279-8855). Request to order the DFPC MMA and ask to speak to the DFPC Duty Officer.

Orders are to include information on the current DFPC MMA Request Form (see RMG chapter 80 or available for download on the Colorado Division of Homeland Security & Emergency Management (DHSEM) web portal: **http://www.dhsem.state.co.us/** under the Colorado Daily Status Report Link or **https://drive.google.com/file/d/0Bw8vQErntSe8aUc2Yjd6S0RoeWs/view**). A ROSS resource order is not needed.

2. For all requests for **in-Colorado-state large fire** reconnaissance, orthophoto, EO/IR, and/or detection flights:
   - A MMA request shall be created in ROSS and placed to the RMACC from the local Colorado Interagency Dispatch Center.

3. For all requests for **out-of-Colorado-state** reconnaissance, orthophoto, EO/IR, and/or detection flights including initial attack or large fire support:
   - A MMA request shall be created in ROSS and placed to the RMACC using the standard dispatching system.

The RMACC will coordinate with the DFPC Duty Officer as needed. If a MMA resource is assigned, the RMACC will fill the ROSS order and create a flight strip to send to the requesting Dispatch Center using the standard dispatching system.

Costs

There is no cost to in-Colorado-state agencies for flights unless assigned to a Colorado large fire.

Assignments to large fire support and out-of-state resource orders will incur flight time and daily availability charges as follows:

Aircraft	Flight Rate/Hour	Daily Availability
Colorado MMA	*$1500	**$3300

*Rates are subject to change. Rates include pilot, a mission system operator (MSO), and near-real time access to all products through the Colorado Wildfire Information Management System (CO-WIMS) portal.

**Daily Availability for 12 hours applies to out-of-state commitments and Colorado large fires.

South Dakota State Aviation Resources (SDS)

State of South Dakota Department of Transportation (DOT) occasionally has 2 King Air 90s available for interagency use under cooperative fire agreements through the South Dakota Division of Wildland Fire, provided an interagency letter of approval has been issued. However, the use of these aircraft is primarily restricted within South Dakota and neighboring states or within the Great Plains Interstate Fire Compact member states.

The State of South Dakota DOT King Air 90s are ordered through the Great Plains Interagency Dispatch Center. The aircraft are based out of Pierre, SD and may be prepositioned as needed during local fire activity.

Costs

Aircraft	Call Sign	Flight Rate/Hour	Daily Availability	F.O.R. per Day	Cruise Speed
Beechcraft KA-C90A	N90SD	*$1500	$1000	No Standby	240 knots/hr.
Beechcraft KA-C90A	N773SD	*$1500	$1000	No Standby	240 knots/hr.

*Rates are subject to change.

Use and Capabilities

Make/Model	Beechcraft KA-90C
Use	Air Attack, Passenger Transport, Recon
Fuel Type	Jet-A
Range (w/reserve)	5 Hours
Max. Take-off Weight	10,100 lbs.
Runway (accelerate-stop distance)	*5,600’ @ max. takeoff weight/5,500’ @ MSL @ 30 C
Single Engine Rate of Climb	253’ per minute @ max. take-off weight @ 20 C
Single Engine Service Ceiling	*8,800’ @ max. weight @ 20 C
Ground Power Unit (less than 500/100 AMPs)	Not Required
Avionics Typing	1

*Varies with weight, temperature and altitude.

Vendor Fixed-Wing Aircraft

USFS Approved Vendors

USFS Region 2 CWN contracts have been awarded for the procurement of tactical, reconnaissance, cargo and passenger fixed-wing aircraft. Contact the RMACC Aircraft desk for information.

DOI/OAS Approved Vendors

A listing of DOI/OAS approved vendors, aircraft, and pilots can be found at the following website: https://doi.gov/aviation/ and is only available to DOI employees**.** A link to this site is available through the Aviation link on the RMACC web page.

Reference the appropriate On Call Air Tactical Fixed Wing Contract or Aircraft Rental Agreement (ARA) when contacting vendors for fixed-wing aircraft procurement. ARA agreements are not authorized for fire orders for more than one day. ARA contracts can be used for reconnaissance as long as it is under $25,000.

Contracted aircraft are inspected and carded by the Office of Aviation Services (OAS) and/or the United States Forest Service (USFS). They are available for interagency use and will be requested through established ordering channels.

Documentation in ROSS at the time of hire must include which contract the aircraft is hired under, i.e. USFS Region 2 CWN or DOI On Call as well as be communicated with the vendor hiring official/pilot and flight manager.

Smokejumper Initial Attack Ordering

(Refer to NMG 20, 50; RMG 20)

When smokejumpers are needed jump-ready for initial attack with aircraft, they are to be requested in ROSS as “Load, Smokejumper, Initial Attack” on an Aircraft request. The sending unit will fill the request in ROSS and will forward a manifest form, with name and agency identification, through the established ordering channels. This information can be acquired after the jump ship is airborne. Any intent to retain smokejumpers which have not been utilized as an IA load will be negotiated between the RMACC and the NICC.

If the RMACC pre-positions smokejumpers when multiple starts are occurring or predicted, they need to specify the anticipated duration. If not deployed during this period, smokejumpers will be made available for higher priorities, unless longer duration is negotiated between the RMACC and the NICC. This will be identified in special needs as “Preposition”.

Aircraft delivering Initial Attack smokejumpers will return to the sending base or a designated airport before the end of the pilot’s daily flight or duty limitations. Any intent or necessity to retain the aircraft will be negotiated between the NICC and the RMACC. If the aircraft is retained past the first operational period, it will be placed on an Aircraft request through established ordering channels.

Ordering Considerations for Initial Attack Smokejumpers which should be noted in Special Needs:

- Order as soon as possible, for full effectiveness.
- Reference the "Ordering Tactical Aircraft" section in the first part of this chapter for minimum information required on a tactical resource order in the RMA.
- Per both BLM and USFS Smokejumper User Guides, smokejumpers can be launched with incident information covering the general location and location coordinates, frequencies, and any other known hazards such as other responding aircraft. All other information can be received enroute to expedite response times.
- Elevation of fire, if known.
- Is the fire in a designated Wilderness Area?

Smokejumper Aircraft
(Refer to NMG 50)

Lead Planes
(Refer to NMG 50)
Lead Planes are national initial attack resources. They are ordered through normal dispatch channels and can be diverted to a higher priority incident.

The IC and/or the tactical pilot has the discretion to request a Lead Plane/Aerial Supervision Module (ASM) anytime they deem it necessary to evaluate drops in difficult terrain prior to requesting an airtanker, etc. If needed to go below 500 feet, a lead plane must be ordered.
(Refer to the RMA Aerial Supervision Requirements Chart found in this chapter)

Not all Lead Plane pilots are MAFFS and/or VLAT qualified.
Refer to http://www.nifc.gov/nicc/logistics/aviation/aviation.htm for a detailed list.

Lead Plane call signs initiate with "Lead". Example: L-28 = Lead Two Eight
Lead Planes should always be filled with a roster in ROSS.

Aerial Supervision Modules (ASM)
(Refer to NMG 50)
An ASM is a two person crew functioning as the Lead and ATGS (Air Tactical Group Supervisor) on the same aircraft. The ASM crew is qualified in their respective positions and has received additional training and authorization. An ASM can perform the functions of a low-level Lead Plane operation, traditional Air Attack, or both, depending on the needs of incident management personnel.
An ASM consists of an Air Tactical Pilot (ATP) and Air Tactical Supervisor (ATS).

Air Tactical Pilot: The ATP is a qualified Lead Plane pilot who has received specialized training and authorization to function as an ASM crewmember. The ATP functions as the Lead Plane pilot and utilizes Crew Resource Management (CRM) skills to evaluate and share the incident workload with the ATS.

Air Tactical Supervisor: The ATS is a qualified ATGS who has received specialized training and authorization to function as an ASM crewmember. The ATS is an ATGS who also utilizes CRM to evaluate and share the incident workload with the ATP.

Not all ASM pilots are MAFFS/VLAT qualified.
Refer to http://www.nifc.gov/nicc/logistics/aviation/aviation.htm for a detailed list.

Call signs for ASMs initiate with "Bravo". Example: B-28 = Bravo Two Eight.

ASMs should always be filled with a roster in ROSS.

Ordering Considerations for Lead Planes/ASM which should be noted in Special Needs:

- Launch timeframe considerations
  - Arriving at incident before airtanker, especially for Next Generation airtankers.
- MAFFS - qualified LP required
- VLAT - qualified LP required

Aerial Supervision Requirements in the RMA

When aerial supervision resources are co-located with retardant aircraft, they should be launched together on the initial order to maximize safety, effectiveness, and efficiency of incident operations. Incidents with 3 or more aircraft over/assigned to them should have aerial supervision over/assigned on the incident. Federal policy dictates additional requirements as listed below.

Situation	Lead Plane/ASM	See Ref.	ATGS	See Ref.
Airtanker not IA rated	Required	1,4	--	-
MAFFS	MAFFS Endorsed Lead/ASM required	1,4	--	-
VLAT	VLAT Endorsed Lead/ASM required	1	--	-
When requested by airtanker, ATGS, LP, ATCO or ASM	Required	1	Required	1
Foreign Government Airtankers	Required if ATGS is not on scene	1	Required if no Lead/ATCO/ASM	1
Multi-engine Airtanker: Retardant drops conducted between 30 minutes prior to, and 30 minutes after sunrise, or 30 minutes prior to sunset to 30 minutes after sunset.	Required if ATGS is not on scene	1,2	Required if Lead/ATCO/ASM is not on scene	1,2
Single Engine Airtanker (SEAT) SEATS are required to be "on the ground" by ½ hour after sunset.	See Level 2 SEAT requirements	1	See Level 2 SEAT requirements	1

Continued next page

Level 2 rated SEAT operating over an incident with more than one other tactical aircraft on scene. SEATS are required to be "on the ground" by ½ hour after sunset.	Required if ATGS is not on scene	1	Required if Lead/ATCO/ASM is not on scene	1
Retardant drops in congested/urban interface areas	Order	1,3,4	May use if Lead/ATCO/ASM not on scene	
Periods of marginal weather, poor visibility or turbulence	Required	1	Order	1
Three or more airtankers assigned to an incident	Required		Must be ordered if Lead/ASM is not available	1
Two or more helicopters with two or more airtankers over an incident	Required		Must be ordered if Lead/ASM is not available	1
Two or more air tankers over an incident or at staggered intervals of 15 min or less.	Required		Must be ordered if Lead/ASM is not available	4
Presence of smokejumper or paracargo aircraft with two or more airtankers over an incident	Required		Must be ordered if Lead/ASM is not available	1,5
Incident has two or more branches			Must be ordered	1,5

References: (1-5 from Aerial Supervision Table)

1. Interagency Aerial Supervision Guide
2. Requires determination by either the ATGS or Lead Plane that visibility and safety factors are suitable for retardant operations and dispatch has been notified of this determination.
3. Required under Exemption 392 from 14 CFR Part 91.119, FSM 5714.11 for USFS jurisdiction. Incidents under BLM jurisdiction require a lead plane to be on order.
4. FSM 5716.32 (differs from DOI policy)
5. FSM 5716.32 classifies these missions as complex. An ASM, Lead Plane, or HLCO should be ordered as appropriate in addition to the ATGS.

Definitions of Key Aerial Supervision Terms:
Required: Aerial supervisory resource(s) are to be over the incident when specified air tactical operations are being conducted.

Ordered: Aerial supervisory resources are to be ordered by the controlling entity. (Air tactical operations may be continued while the aerial supervision resource is enroute to the incident. Operations can be continued if the resource is not available.)

Over: The air tactical resource is flying above or is in a holding pattern adjacent to the incident.

Assigned: Tactical resource allocated to an incident. The resource may be flying enroute to and from, or on hold at a ground site.

Ordering Considerations for Aerial Supervision and other Fixed Wing:

- Aerial supervision resources will be dispatched, when available, for initial and extended attack to enhance efficiency and safety of ground and aerial operations.
- Communication and coordination is critical to the efficient use of aerial supervision resources due to faster mobilization of new generation aircraft.
- Oxygen requirements – Flights using call when needed (CWN) vendors must comply with FAA regulations they operate under.
    - **Part 135 – 14 CFR Part 135.89**: Supplemental oxygen must be available and used by the flight crew at cabin pressure altitudes above 10,000 feet (MSL) for that portion of the flight more than 30 minutes duration. At cabin pressure altitudes above 12,000 feet (MSL) the flight crew (including aerial supervisors) must use supplemental oxygen during the entire flight.
    - **Part 91.211**: Supplemental oxygen must be available and used by the flight crew at cabin pressure altitudes above 12,500 feet (MSL) for that portion of the flight more than 30 minutes duration. At cabin pressure altitudes above 14,000 feet (MSL) the flight crew (including aerial supervisors) must use supplemental oxygen during the entire flight. At cabin pressure altitudes above 15,000 feet (MSL) all passengers must have supplemental oxygen available during the entire flight.
- **Flight Condition Guidelines** – Aerial Supervision personnel must carefully evaluate flight hazards, conditions (visibility, wind, thunder cells, turbulence, and terrain) to ensure that operations can be conducted in a safe and effective manner. The following policies and guidelines are designed to do this:
    - **Visibility** – Regardless of time of day, when poor visibility precludes safe operations, flights will be suspended. It is recommended that incident aircraft fly with landing and strobe lights on at all times. It is required that lead planes fly with landing/impulse and strobe lights on at all times. Regular position reporting is critical in marginal visibility conditions.
    - **Wind Conditions** – Moderate to high winds and turbulent conditions affect flight safety and water/retardant drop effectiveness. The following guidelines should be considered in making the decision to continue or suspend operations. A number of factors including terrain, fuel type, target location, resources at risk, cross-winds, etc. must be considered.

- **Heavy Airtanker Drops**:
  - Generally ineffective in winds over 20-25 kts. (23-29 mph)
- **SEAT Operations**
  - Generally ineffective in wind over 15-20 kts. (17-23 mph) Operations shall be suspended when sustained winds are 30 kts. (34 mph) or the gust spread is 15 kts. (17 mph)
- **Helicopter Drops**
  - Generally ineffective in winds over 25-30 kts. (29-34 mph)

Tactical and Reconnaissance Aircraft
Documentation in ROSS at the time of hire must include which contract the aircraft is hired under, i.e. USFS Region 2 CWN or DOI On Call, as well as be communicated with the vendor hiring official/pilot and flight manager.

A copy of the resource order should be shared with the ATGS, pilot and/or company point of contact.

Cost, aircraft performance, configuration, and incident location will be considered when filling orders.

Ordering Considerations for Air Attack which should be noted in Special Needs:

- Turbo/Turbine powered
- Operating Altitude
- Pressurized vs non-pressurized
- Avionics Type (NMG 50)
- High wing/Low wing
- When using CWN aircraft, ATGS and aircraft will be brought together at a pre-designated airport/ATB/FBO (Fixed Base Operator) prior to arrival at the incident.
- Will Trainee be used (could affect performance)
- Identify ATGS in special needs/documentation if known, with contact info.
- ATGS – evaluate situation to determine if agency vehicle will be provided or if rental car is needed and/or authorized.

Airtankers
(Refer to NMG 50)
The RMACC/Dispatch Centers shall retain control of air tankers during incidents and have authority to divert airtanker(s) to initial attack situations based on threat to life, property, or resource values. Incidents affected by diverts must be informed by the local Dispatch Center. Critical items listed earlier under Ordering Tactical Aircraft must be provided as well as for any diverts from the original order.

There are five (5) types of airtankers:

Type	Capacity (Minimum)	
VLAT	8,000 gallons or more	(VLAT=Very Large Airtanker)
1	3,000 to 7,999 gallons	
2	1,800 to 2,999 gallons	
3	800 to 1,799 gallons	
4	Up to 799 gallons	

When the RMACC has depleted available large airtanker (Types 1, 2 & VLAT) resources, request(s) will be placed with the NICC. Large airtanker initial attack agreements between neighboring unit level dispatch centers are valid only where proximity allows the airtanker to respond loaded direct to the incident.

The NICC will prioritize and allocate federal airtankers by positioning them in areas of current or predicted high wildfire danger or activity.

Ordering Considerations for Airtankers which should be noted in Special Needs:

- Values at Risk (see RMG 10)
- Distance from the fire and anticipated timeframes to the Values at Risk based on current and expected weather.
- Loaded or Empty – 2 hour maximum flight when loaded, except for the VLATs
- Reload Base
- Is the reload base approved for VLAT or MAFFS?
- Lead Plane/ASM is required for VLAT and MAFFS

FYI- An order for an airtanker may be filled by a VLAT due to ATB rotation. However this will not occur without dialogue between the NICC, RMACC and the ordering unit. Documentation and dialogue will be critical for a positive outcome in these scenarios, especially if the ordering unit is not able (financially) or willing (terrain issues) to accept a VLAT.

Airtanker Management
To ensure consistent utilization, rotation and management of the national airtanker fleet, please refer to PMS 508 Interagency Airtanker Base Operations Guide, PMS 506 Interagency SEAT Operations Guide (ISOG), and supplemental direction provided in NMAC correspondence #2015-4 or superseding NMAC correspondence.

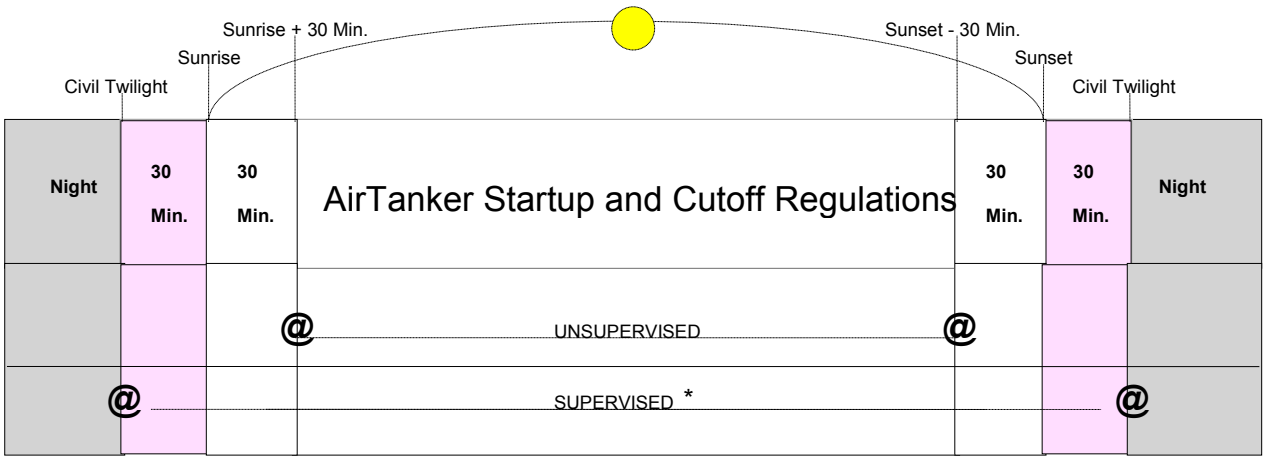
Airtanker Dispatch Limitations - Startup/Cutoff Times
To reduce the hazards encountered by pilots operating in low light conditions over the fire, airtanker retardant drops in the early morning and late evening hours must comply with the following limitations. These limitations apply to the time the aircraft arrives over the fire, not to the time the aircraft is dispatched.
(Refer to the Interagency Airtanker Base Operations Guide, Chapter IV)

Limitations on Startup and Cutoff Time: Multi-engine airtankers shall be dispatched to arrive over a fire (with no aerial supervision on scene) not earlier than 30 minutes after official sunrise and not later than 30 minutes before official sunset. These times are termed the "startup" and "cutoff" times respectively.
Exception: With a qualified Air Tactical Group Supervisor, ASM or Lead Plane, airtankers may be dispatched to arrive over a fire as early as 30 minutes **prior to** official sunrise and as late as 30 minutes **after** official sunset provided:

- Lead plane, ATGS, or ASM is on scene.
- It has been determined that visibility and other safety factors are suitable for dropping retardant; and
- Notification to the appropriate dispatcher of this determination.

Determination of Official Sunrise, Startup, Cutoff, and Sunset Time:
Each airtanker base and dispatch office shall have tables showing the official sunrise, startup, cutoff, and sunset times at those locations.

Determinations for Airtanker Dispatch: Use the official sunrise, startup, cutoff, and sunset times of the airtanker base nearest the fire and comply with the limitations in the preceding paragraphs 1 and 2.



@ = Arrival Over The Fire (No earlier in the morning or later than in the evening)

* = SUPERVISED (Defined as Airtanker Coordinator or Air Tactical Group Supervisor)

Note: Sunrise and Sunset are determined by the Official Sunrise and Sunset Tables of the nearest reload base.

For further information, refer to the Interagency Aerial Supervision Guide (IASG), BLM Handbook H-9400-2 IV.U.3, FSH 5709.11-41 and the Interagency Single Engine Airtanker Operations Guide (ISOG) Ch. 3, II, E.

Airtanker Use in Optional and Post Season Periods
(Refer to NMG 50)

RMA Air Tanker Bases (ATB) / Reload Bases

Airport	Name	Dispatch Center/Hosting Agency	
DRO	Durango ATB	DRC/USFS	Full Service Contract
BJC	Jeffco ATB	FTC/USFS	Force Account
GJT	Grand Junction ATB	GJC/BLM	Full Service Contract
RAP	Rapid City ATB	GPC/USFS	Full Service Contract
PUB	Pueblo Reload Base	PBC/USFS	Permanent
CPR	Casper Reload Base	CPC/BLM	Temporary

(CPR requires activation /ordering of a portable retardant base)

RMA VLAT Approved Airports

Airport	Name	Dispatch Center/Hosting Agency
CPR	Casper, WY	Current agreement good through 2016
PUB	Pueblo, CO	Updated agreement needed annually.

For information regarding airtanker capabilities, see the Interagency Airtanker Base Directory (IATB PMS 507/NFES 002537).

Modular Airborne Firefighting Systems (MAFFS)
(Refer to NMG 50)

MAFFS Airlift Wings in the RMA

Peterson Air Force Base, CO	COS	Federal-Air National Reserve	2 C-130
Cheyenne, WY	CYS	State-Air National Guard	2 C-130

State Activation of MAFFS units:
The State of Wyoming has an agreement between the Governor and the Wyoming Air National Guard MAFFS unit, which allows activation of the Cheyenne unit. Orders will be placed through established dispatch channels, and notification made to the RMACC and the NICC.

National Activation of MAFFS units:

- The RMACC will ensure that all commercial airtankers in the RMA are committed to fires or pledged to initial attack needs before placing the order with the NICC. The NICC will advise the RMACC if MAFFS activation is warranted or if the request can be filled with a contract tanker. If MAFFS are activated, the RMACC will deal directly with the MAFFS liaison officer as directed by the NICC.
- Refer to the MAFFS Operating Plan for further information regarding MAFFS operations.

Colorado Springs is a MAFFS unit under the operational control of the United States Air Force National Reserves and requires National activation.

MAFFS Approved Reload Bases in the RMA

DRO	Durango ATB	DRC/USFS
BJC	Jeffco ATB	FTC/USFS
GJT	Grand Junction ATB	GJC/BLM
RAP	Rapid City ATB	GPC/USFS
PUB	Pueblo Reload Base	PBC/USFS

Water Scoopers
(Refer to NMG 50)

Single Engine Airtankers (SEATs)
(Refer to NMG 50)
For general guidelines about SEATs, see the current edition of the Interagency Single Engine Airtanker Operations Guide (ISOG - NFES #1844) published every three years. For operations in the RMA, refer to the Interagency SEAT Operations Plans available per state.

SEAT Typing
Because of the growing number of SEATs that qualify as Type 3 airtankers, the numbering system for SEATs will be as follows:

Aviation managers will coordinate any administrative movement of SEATs with the RMACC and affected dispatch centers.

All SEATs that qualify as Type 3 SEATs will be issued airtanker designation numbers and call signs starting at 800 and ending with 899.

All SEATs that qualify as Type 4 SEATs will continue to be issued airtanker designation numbers and call signs starting at 400 and ending with 499.

Requests for Federal or State approved SEATs will be through normal channels. SEATs can be utilized for initial attack. There are occasions when single engine airtankers can be used more safely than large airtankers due to terrain. The Incident Commander or aerial supervisor should determine this utilization.

A SEAT Manager (SEMG) will be assigned at all times. Exclusive Use SEATs will not necessarily come with a SEMG and one should be ordered if needed. A SEMG should be ordered separately for CWN SEATs.

When operating in a congested area under USFS jurisdiction and hire, SEATs must operate in accordance with USFS Grant of Exemption #392 which requires Lead Plane/Airtanker Coordinator/ATGS on scene and implementation of a Temporary Flight Restriction (FAR 91.137).

When operating in a congested area under BLM jurisdiction and hire, SEATs must operate in accordance with FAR Part 91.119(b) and FAR Part 137.51 and 137.53 for General Aviation and dispensing of chemicals.

SEATs are required to be "on the ground" by 1/2 hour after sunset.

Ordering considerations for SEATs which should be noted in Special Needs:

- Operating Altitude
- Operating Temperature
- Reload Base
- Is Support Truck needed?
- Is there a SEMG in place?
- Values at Risk
- Distance from the fire and anticipated timeframes to the Values at Risk based on current and expected weather

BLM – Colorado/Wyoming (CSO/WSO) SEATs

The DOI will host exclusive use SEATs nationally, and will be moved as requested through the ROSS ordering system.

BLM (Colorado and Wyoming), may be requesting On-Call SEAT contracts for up to 90 days in coordination with the BLM National Aviation Office. These start dates will be based on current or expected fire activity. The hosting base will be determined at that time. It is expected that the Federal SEATs will move with fire activity.

Colorado Division of Fire Prevention and Control (DFPC) SEATS

The Division of Fire Prevention and Control has an annual Exclusive Use SEAT contract. This contract may be for up to four SEATs. The start date is determined by fire activity, generally an April timeframe. Contact CO DFPC Aviation Unit Chief.

State of South Dakota (SDS) SEATS

SDS may host up to 4 SEATs during fire season. These SEATs are contracted directly with the state of South Dakota on a CWN basis usually starting July 1st. All SDS contracted SEAT aircraft are required to hold a current "interagency fire" aircraft card, and all pilots of the SDS contracted SEATs will possess a current "interagency fire" pilot card for the make/model flown.

All SDS Contracted SEATs are required to hold a current National DOI On-Call SEAT contract, as well as the state of South Dakota SEAT contract. All SDS contracted SEATs are mobilized through Great Plains Dispatch (GPC). SDS is granted a Letter of Agreement (LOA) by USFS-R2 and DOI to mobilize SDS SEATs to federal jurisdictional fires within SD, NE and WY within the GPC zone under the state contract.

SDS Contracted SEATs that are requested to mobilize outside of the GPC zone will follow the established On-Call SEAT Contract ordering process. Upon approval to fill the order, the SDS SEATs will be released from the SDS State contract, and will be filled by the ordering agency under the DOI On-Call SEAT contract.

State of Nebraska SEATs
SEATs are contracted by the Nebraska Emergency Management Agency (NEMA). The contact is Earl Imler. SEATs are located at Chadron (CDR) or Valentine (VTN), NE.

State of Nebraska Contracted SEATs that are requested to mobilize outside of the GPC zone will follow the established On-Call SEAT Contract ordering process. Upon approval to fill the order, the State of Nebraska SEATs will be released from the State contract, and will be filled by the ordering agency under the DOI On-Call SEAT contract.

RMA SEAT Bases

Category I

GPC	Buffalo, SD	9D2
PBC	Canon City, CO	1V6
CPC	Casper, WY	CPR
GPC	Chadron, NE	CDR
DRC	Cortez, CO	CEZ
CRC	Craig, CO	CAG
DRC	Durango, CO	DRO
FTC	Fort Collins/Loveland, CO	FNL
GJC	Grand Junction, CO	GJT
CDC	Greybull, WY	GEY
GPC	Hot Springs, SD	HSR
FTC	Broomfield/Jeff Co, CO	BJC
GPC	Lemmon, SD	LEM
GPC	Mobridge, SD	MBG
GPC	Pierre, SD	PIR
PBC	Pueblo, CO	PUB
GPC	Rapid City, SD	RAP
RWC	Rawlins, WY	RWL
GJC	Rifle, CO	RIF
CDC	Riverton, WY	RIW
GPC	Valentine, NE	VTN

Category II

PBC	Alamosa, CO	ALS
GPC	Alliance, NE	AIA
PBC	Elkhart, KS	EHA
CPC	Gillette, WY	GCC
PBC	La Junta, CO	LHX
CRC	Meeker, CO	EEO
CRC	Rangely, CO	4V0
RWC	Rock Springs, WY	RKS
CDC	Worland, WY	WRL

SEAT Base Category I and II Definitions (per ISOG)

I – Any Large ATB or SEAT Base with an established full service, bulk or Blanket Purchase Agreement (BPA) retardant contract that is published in the IATB Directory. Personnel are either permanently assigned or placed on an on-call status to immediately support Seat operations. Equipment and retardant are on site year-round. All Category I Bases will meet the standards identified in the SEAT Base Checklist(s).

II – Airports that have been identified as capable of supporting SEAT operations and will support parking mobile loading equipment for a limited timeframe on a call-when-needed basis. Appropriate agreements are in place with hosting airport authority. Personnel are assigned to the base as needed to support short term SEAT operations. A water supply may be identified and available.

Large Transport Aircraft

There are no large transport aircraft on exclusive use contract within the RMA. The RMACC will help facilitate all large transport needs within the RMA through the NICC for crew and IMT mobilization. See NMG Ch.50 for further information.

Passenger/Cargo Manifests

This form shall be used in conjunction with all large transport operations. FAR 121 require a minimum of two copies be furnished to the operator; the sending unit should retain one copy as a permanent record. The NICC requires that personnel weights be separated from gear/cargo weights. (Refer to RMG 10, 80)

All crews shall be manifested and a copy sent to the local dispatch center within 2 hours of their departure.

Helicopters: Exclusive Use (EU) Contract
(Refer to NMG 50)
Exclusive use and agency owned helicopters must be ordered through normal dispatch channels and should be used before CWN aircraft. They should always be filled with a roster in ROSS.

Ordering Considerations for EU Helicopters which should be noted in Special Needs:

- Operating Altitude
- Operating Temperature
- High Performance
- Bucket vs Tanked
- Intended Use information for the incident or project to ensure the appropriate aircraft is ordered to meet mission needs.
- Rappel
- Short-Haul capable

RMA USFS, DOI & State Exclusive Use Contract Helicopter Listing

Heavy Helicopters		**Home Base**	
(Type 1 National Resource)			
USFS R2	(Restricted)	BJC	Broomfield, CO (Jeffco ATB)
USFS R2	(Restricted)	CUT	Custer, SD
USFS R2	(Restricted)	RIL	Rifle, CO

Medium Helicopter	**Home Base**	
(Type 2 National Resource)		
USFS R2 (Standard)	DRO	Durango, CO
State of Colorado (Restricted)	FNL	Fort Collins, CO

Light Helicopters	**Home Base**	
(Type 3 RMA, all Standard)		
Arapaho-Roosevelt National Forest (USFS)	BJC	Broomfield, CO (Jeffco ATB)
Pike/San Isabel National Forest (USFS)	61CO	Monument, CO
Black Hills National Forest (USFS)	CUT	Custer, SD
Colorado State Office (BLM)	RIL	Rifle, CO
High Desert District (BLM)	RWL	Rawlins, WY
Ute Mountain Ute Agency (BIA)	-	Towaoc, CO
Wind River Agency (BIA)	-	Fort Washakie, WY
Mesa Verde National Park (NPS)	-	Fort Lewis, CO
State of Wyoming	-	Glenrock, WY
State of Colorado	MTJ	Montrose, CO
State of Colorado	1V6	Canon City, CO

Please see the Interagency Aviation Tech Bulletin IA-07-03 for information regarding restricted category of Aircraft.

Helicopters: Call When Needed (CWN) (USFS and/or DOI On Call)
Orders for helicopters will be placed through established ordering channels. Helicopters for DOI incidents will be ordered under DOI/OAS On Call contracts or Aircraft Rental Agreements (ARA) and paid for using OAS-23/23E Aircraft Use Report form which is entered into the Aviation Management System (AMS). Department of Agriculture incidents will order helicopters under USFS Region 2 (R2) contracts, and will be paid for using form 6500-122, which is entered into the Aviation Business System (ABS).

DOI On Call Small Helicopters
A listing of DOI/OAS approved aircraft can be found at the following website: https://www.doi.gov/aviation/ and is only available to DOI employees.

USFS CWN Helicopters
Contract information will be shared by the USFS Aviation Management to the field.

Helicopter Call Signs
FAA assigned tail numbers will be used by Exclusive Use and CWN helicopters as the call sign. Out of area aircraft shall utilize their FAA assigned tail number as their call sign when working in the RMA.
Example: N2016B = H-16Y (Helicopter One Six Bravo)

Ordering Procedures for CWN USFS and/or DOI On Call
The Type 1 and Type 2 CWN Helicopter program is administered by the National Interagency Fire Center (NIFC) in Boise, ID. All ordering of CWN T1 and T2 helicopters will be done through normal dispatch channels through the RMACC to the NICC. To reassign T1 and T2 helicopters, approval must be acquired through the NICC. (Refer to NMG 50)

RMA Type 3 helicopters should be ordered through the following established dispatch channels:

- For **wildfires,** all T3 orders for CWN will be placed with the RMACC. If none are available within the GACC, the order will be placed with the NICC.

- For **local projects or prescribed fires,** the T3 helicopter order may be placed directly to the vendor within the RMA. If the order is placed up to the RMACC it must include the appropriate cost comparison documentation.

The RMACC should be notified prior to any potential ordering of CWN helicopters for both fire and project work.

Documentation in ROSS at the time of hire **must include which contract the aircraft is hired under, i.e. USFS or DOI.** A copy of the resource order shall be shared with the HMGB, pilot and/or company point of contact. Cost, helicopter performance, configuration, and incident location will be considered when filling orders.

Minimum CWN Helicopter Module Staffing
(Refer to NMG 20, RMG 20)
For any standard, **light** helicopter, a manager plus a minimum of 2 crewpersons will be ordered and assigned via support requests in ROSS.

For any standard, **medium** size helicopter, a manager plus a minimum of 3 crewpersons will be ordered and assigned via support requests in ROSS.

For any standard, **heavy** helicopter, a manager plus a minimum of 4 crewpersons will be ordered and assigned via support request in ROSS.

For any limited/restricted helicopter, a manager will be ordered and assigned via support request in ROSS.

Refer to the NMG 20 and the Interagency Helicopter Operating Guidelines (IHOG) Ch. 20 for further information.

Non-Fire CWN Project / Administrative Work
A project helicopter manager will be assigned to a helicopter for any project work to ensure safety, as detailed in the Project Aviation Safety Plan (PASP). Refer to Agency and local policy for specific requirements.

Ordering Considerations for CWN Helicopters which should be noted in Special Needs:

- Operating Altitude
- Operating Temperature
- High Performance
- Bucket vs Tanked
- Long Line required (length: 50’, 100’, etc)
- Helicopter Manager identified, with contact info.
- Intended Use information for the incident or project to ensure the appropriate aircraft is ordered to meet the mission needs.
- Hand tools
- Chain Saw Kit
- Helicopter Support Kit
- Chase Rig needed
- Rental authorized if needed
- Cell phone/laptop authorized for HMGB
- Flight Helmets
- Radios
- Module and Support
- When using CWN helicopters, module personnel and aircraft will be brought together at a pre-designated place **PRIOR** to arrival at the incident, usually an airport. See IHOG Ch. 2.

Helicopters: National Guard
Commercial resources must be evaluated for reasonable availability prior to National Guard activation.

Colorado Army National Guard
Colorado Army National Guard (CO-ARNG) is located at the Buckley Air National Guard Base in Aurora, Colorado. Their mission purpose is limited to Emergency Life Saving Missions and/or Wildland Fire Fighting Activities as specified in the Colorado Interagency Cooperative Fire Management Agreement.

HAATS (High Altitude ARNG Aviation Training site), located in Eagle, CO provides "graduate level" training to military helicopter pilots flying in mountainous terrain and/or high temperatures.

Nebraska Army National Guard
Nebraska Army National Guard Helicopters are located in Lincoln, Nebraska. Their mission purpose is limited to Emergency Life Saving Missions and/or Wildland Fire Fighting Activities as specified in the Nebraska Interagency Cooperative Fire Management Agreement.

The Nebraska National Guard is responsible for maintaining and providing State assets of ground and aerial wildfire suppression personnel and equipment when authorized by proclamation of the Governor under the Nebraska Emergency Management Act.

South Dakota Army National Guard
South Dakota Army National Guard Helicopters are located at the Rapid City Regional Airport in Rapid City, South Dakota. Their mission purpose is limited to Emergency Life Saving Missions and/or Wildland Fire Fighting Activities as specified in the South Dakota Interagency Cooperative Fire Management Agreement.

Wyoming Army National Guard
Wyoming Army National Guard Helicopters are located in Cheyenne, Wyoming. Their mission purpose is limited to Emergency Life Saving Missions and/or Wildland Fire Fighting Activities as specified in the Wyoming State Interagency Cooperative Fire Management Agreement.

Helicopters: Hoist/Extraction
The Emergency Helicopter Extraction Source list can be found at http://www.fs.fed.us/fire/aviation/av_library/Revision_9_EHE_Source_List(06-2015)508.pdf

When ordering a helicopter with short-haul capability, request the aircraft as normal and define the added capability "Short-Haul" in Special Needs in ROSS.

Colorado National Guard Medical Hoist/Extraction Helicopters
The National Guard may have available helicopters, equipment, and personnel for the purpose of medical hoist/extraction needs within the RMA on wildfire incidents. The National Guard units may be ordered through CO State for state incidents or through the RMACC for federal incidents. See tables below.

When the need has been identified for medical hoist/extraction aircraft, the IC will contact the hosting unit dispatch center, who will contact the RMACC. The RMACC will contact the Colorado Office of Emergency Management (COEM) Duty Officer (303-279-8855), the hosting unit's Agency Aviation Manager and the USFS R2 HOS. Use of any Colorado National Guard resources (aircraft, equipment, facility or personnel) requires specific state approval. Written requests should be submitted to the COEM Duty Officer prior to use.

Wyoming National Guard Medical Hoist/Extraction Helicopters
Please see the Emergency Helicopter Extraction Source list for information: http://www.fs.fed.us/fire/aviation/av_library/Revision_9_EHE_Source_List(06-2015)508.pdf

South Dakota National Guard Medical Hoist/Extraction Helicopters
South Dakota National Guard helicopters based in Rapid City are UH-60M models with medical hoist extraction capability for medivac operations within the state.

Mobilization of National Guard Helicopters
If a fire incident **occurs on federal lands** within the RMA, the following offices shall contact their respective Guard units:

Colorado	The RMACC contacts the Colorado Office Emergency (COEM) Management Duty Officer 303-279-8855.
Nebraska	GPC (Nebraska National Forest)
South Dakota	GPC (South Dakota Wildland Fire)
Wyoming	The RMACC contacts the Wyoming State Forestry Duty Officer.

In the event that an interagency incident **occurs on State lands within the RMA**, the following personnel shall make contact with their respective Guard units:

Colorado	Division of Fire Prevention & Control (DFPC) Regional or Area Fire Duty Officer 303-279-8855.
Nebraska	GPC (Nebraska State Emergency Management Agency)
South Dakota	GPC (South Dakota Wildland Fire)
Wyoming	Wyoming State Forester Duty Officer with follow-up to appropriate zone dispatch center and the RMACC.

National Guard pilots and aircraft will be issued an annual letter of approval by the Forest Service Regional Aviation Officer or their designee. VHF-AM and VHF-FM radios will be installed in all helicopters to allow necessary communication with all other resources assigned to the incident.
Currently the USFS has authorized NG agreements in place, and annually issues an approval letter which lists approved aircraft and pilots. There is a joint DOI/USFS agreement being developed.

Annual interagency training will be provided by Regional/State Aviation Technical Specialists, Helicopter Operation Specialists, Incident Air Operations personnel, and experienced Fire Suppression Specialists. Training will include aviation policy, incident air operations, organization, coordination, communication, dispatching procedures, fire tactics/behavior, and water bucket techniques.

Commercial sources must be exhausted or not immediately available during times when there is a threat to life and property, prior to activation of Guard units for Federal fires.

National Guard Liaison Officer (or Principal Advisor) will be mobilized with the guard on all federal incidents. Reference Ch. 50 of the Interagency Incident Business Management Handbook, for specific procedures.

Communication and coordination notifications should always occur with the appropriate zone dispatch center and the RMACC.

Military Training Routes (MTR) and Special Use Airspace (SUA)
(Refer to NMG 50)
Military Training Routes and Special Use Airspace that present conflicts with incident related aviation activities will be identified by local units. One source for this information is AP/1B, Flight Information Publication, and "Military Training Routes." Each dispatch office should download a current edition of the AP/1B. The link requires a NAP user account – https://fireportal.usda.gov.

Special Use Airspace may be found on Sectional Aeronautical Charts. Critical Airspace information pertinent to flight should be organized for easy and rapid utilization; i.e., displayed on dispatching hazard maps. Further direction may be obtained in the Interagency Airspace Coordination Guide at www.airspacecoordination.net.

In order to ensure that safe operations can be conducted and continued in areas of increased military aircraft operation, the local dispatch center must inform the military of the presence of USFS and/or DOI aircraft operating in or near military airspace. The military operates high speed flights that are often at low altitudes along prescribed routes called MTRs and in areas of high density military training or in Special Use Airspace (SUA). It is imperative that the military be informed of Land Management Agency aircraft operations to de-conflict the airspace prior to commencing operations.

MTR and SUA procedures:

- Identify the MTRs/SUAs that are impacted.
- Units should develop an overlay using Unit boundary and the AP/1B to identify those routes that affect their area.
- Check routes against those listed in the AP/1B to identify the type of flight, altitudes, and route numbers. Certain data may not be depicted on the AP/1B and is only available through your local military units.
- MTRs change periodically; units need to review the routes quarterly with their unit overlays.
- Air space restriction information is passed to the military through the Federal Aviation Administration (FAA). Sometimes information is not processed in a timely manner. Phone numbers for local military units can be found in the AP/1B MTR publications.

Airspace Conflicts

Individual Dispatch Center Operating Plans must have boundary airspace management procedures identified. Templates are available in the BLM National or State Aviation Plans. For information refer to the Airspace Coordination Guide Chapter 8 and the National Interagency Airspace website at http://airspacecoordination.net.

Unmanned Aircraft System (UAS) Intrusion Reporting

All UAS intrusions and problems must be reported to the FAA whether or not there is a Temporary Flight Restriction (TFR) in effect. Field personnel reports to their dispatch center who reports to the RMACC who reports to the appropriate Air Route Traffic Control Center (ARTCC) who reports to their Defense Event Network (DEN). See the RMACC website for a link to the online reporting form at http://rmacc.info/.
Use the following **Pocket Card info** as a reporting guide:

UAS Intrusion Reporting Info Guide

- Name & contact info of Reporting Party
- Date, Time & Location of Intrusion
- Latitude & Longitude if possible
- Intrusion Type: TFR or Situational (non-TFR)
- Description of Intrusion/Situation
- Number, Type, Size & Color of UAS(s)
- Altitude (approx) & Direction of flight (NE, SW)
- Law Enforcement Officer (LEO) notified? If so, their contact info
- UAS Operator located? In contact with LEO?
- Agency aircraft on scene? Number & Type(s)
- Agency aircraft grounded? Number & Type(s)

UAS Considerations:

- Collect intrusion info prior to notifying dispatch
- Dispatch notifies the RMACC who notifies FAA ARTCC
- Additional notifications: Regional Aviation Officer (RAO), State Aviation Manager (SAM), Unit Aviation Manager (UAO), Forest Aviation Officer (FAO)
- Consider a TFR if not already issued for incident & is appropriate to request
- File a SAFECOM under Airspace/UAS category
- Collect photos &/or videos for documentation
- Refer to https://www.faa.gov/uas/regulations_policies/ for UAS regulations.

Aircraft Services

Temporary Flight Restrictions (TFR) (FAR 91.137)

Refer to NMG 50 and the Interagency Airspace Coordination Guide Chapter 6 and/or the Interagency Airspace website at http://airspacecoordination.org/coord.shtml.

Temporary Flight Restrictions will be established when incident related aviation activities present potential conflict with other aviation activities.

The Federal Aviation Administration (FAA) has streamlined their TFR system. Therefore, requests for TFRs (FAR 91.137) will be placed through Dispatch Centers to the RMACC who will enter the TFR request into the FAA NOTAM (Notice to Airman) Entry System (NES), and follow up with a phone call to the appropriate Air Route Traffic Control Center (ARTCC).

The FAA requires that latitude/longitude information for TFRs must be provided in degrees, minutes, and seconds, including reference to north latitude and west longitude. If seconds information is not available, add two zeros to the description. Do not use spaces, commas or other symbols in the description.

Example: ddmmssN/dddmmssW or 450400N/1174005W.

The corner points should be listed in a clockwise sequence around the requested TFR to avoid “bow tie” depictions.

Consider requesting that the TFR be 3000’ above the highest terrain point due to the Fire Traffic Area (FTA). This will assist in keeping the air attack and other necessary aircraft flying within the TFR.

Dispatch Centers will ensure that the TFR is cancelled through the RMACC as soon as it is no longer required. Refer to faa.gov for a current listing and graphical depiction of TFRs throughout the nation. The DINS website is also available for a current listing of TFRs throughout the nation, without the map or graphics, and includes the Fire Name at https://www.notams.faa.gov/dinsQueryWeb/.

Ordering considerations for TFRs

- Order a new Air to Air frequency before placing an order for a TFR whenever possible.
- Timing of TFR request (late in the day) with the expected duration of aviation activities for that day.

When requesting a TFR you will indicate either:

- TFR - 24 hours a day or
- Time Specific TFRs - have a morning start time and an evening closing time.
    - The TFR NOTAM will include the starting and closing time in its narrative.

Refer to RMG Ch.80 for the FAA Temporary Flight Restriction Form.

Infrared Aircraft - IR – Airborne Thermal Fire Mapping

Infrared requests must be placed with the NICC through established ordering channels no later than 1530 Mountain. Requests for infrared flights will be created on the National Infrared Operations (NIROPS) website at http://nirops.fs.fed.us/rcr/scanner/index.php. User accounts can be requested by contacting NIROPS directly.

A ROSS A# is required to complete the NIROPS request form. ROSS requests are ordered as a Service - Aviation, Service - Infrared Flight, typically for that evening at 2200 and must be ordered on a daily basis as needed.

See RMG 80 for Infrared Aircraft Scanner Request Form
See NMG 50 for IR Aircraft flight rates

FAA Temporary Control Tower Operations

(Refer to NMG 50)
GACCs within the FAA's Western Service Area (AK, AZ, CA, CO, HI, ID, MT, NV, OR, UT, WA, and WY) may request FAA Air Traffic Control support through the Western Service Area Agreement when Air Operations in support of an incident becomes complex or unsafe at uncontrolled airports or helibases.

FAA Temporary Control Towers are ordered on an Aircraft Request. A lead time of 48 hours is desirable when ordering. Ordering procedures are outlined within the current agreement located at the airspace coordination website if available (www.airspacecoordination.net). The RMACC does not need to forward the request to the NICC.

The Interagency agreement with the FAA requires that a Resource Order and a Temporary Tower Request form be forwarded to the FAA. The forms may be forwarded when the request is made by the RMACC to the FAA's Regional Operations Center (ROC). The current Temporary Tower Request form is located on the RMACC website under the Aviation Forms link, or refer to RMG Ch. 80. In addition, there is a helpful checklist in Chapter 11 of the Interagency Airspace Coordination Guide that aids in requesting a Temporary Tower.

If the FAA cannot supply radios, the incident COML will order radios as an Equipment Request through established ordering channels.

Agreements will be set up on an as-needed basis for South Dakota through Air Traffic Division Great Lakes Region, or through Air Traffic Division Central Region for Nebraska and Kansas**.**

Dedicated Radio Frequencies and Management
(Refer to NMG 50)
The RMACC Center Manager will assign an Area Frequency Coordinator during Preparedness Levels 4 and 5. Refer to the National Incident Radio Support Users Guide, NFES 0968. The Communications Duty Officer (CDO) can be contacted at National Incident Radio Supply Cache (NIRSC) 208-387-5644. Requests will be processed through normal dispatch channels.

Frequency Management - Federal and State Land Management Agencies agree to the sharing of specific radio frequencies that are authorized/licensed for each agency. Shared frequencies are to provide efficient, cost effective radio/communication support in protecting life and property. The sharing of frequencies is under the authority of the National Telecommunications and Information Administration (NTIA) Regulations Manual, Sections 7.3.1, 7.3.4 and 7.5.1 and the Federal Communications Commission (FCC) Rules and Regulations, Part 90, Sections 90.405 and 90.407.

National Air Guard - 168.6250 Tone 110.9 Transmit
Air Guard is approved as an emergency frequency in an event that the aircraft has an emergency. It is also approved as a hailing frequency for establishing initial contact or redirecting an aircraft, etc. It is not approved for tactical missions.

National Flight Following - 168.6500 Tone 110.9 Transmit & Receive
National Flight Following is approved for point-to-point flight following. It is not approved for tactical missions such as recon, fire, projects, etc. A local designated frequency should be used for Initial Attack and Agency or Project frequency.

The National Airtanker Base Frequency
From the Interagency Aviation Tech Bulletin (IATB 2014-01) dated March 21, 2014:
There is no "National Standard" frequency to be used as the go-to tanker base frequency. Refer to the National Airtanker Base Directory (NFES #2537) for the most current information.

If a tanker base is not listed in the National Airtanker Base Directory, there is no frequency assigned to that base. When a temporary base is activated, a ROSS order must be placed requesting a frequency for that location. Per FAA engineering, each tanker base frequency is authorized for a service volume of 40 nautical miles and a 5000' ceiling. Each project/all-risk incident service volume is engineered at 20 nautical miles and a 5000' ceiling. When placing a ROSS order for an Air to Air AM frequency for a temporary tanker base, you will need to state in the request that this is for a tanker base or else the FAA will only authorize a service volume on 20 NM and 5000' ceiling

Initial Attack Aircraft Frequency Assignments - Each state in the RMA has been divided into zones by the national frequency coordinator. These zones are coordinated with the rest of the nation's frequency assignments. Each zone has pre-identified Initial Attack frequencies. These frequencies are updated annually. See RMA Frequency Maps for specific information.

All additional frequencies must be ordered from and coordinated by the RMACC. Tertiary Air to Air AM Initial Attack frequencies are available for use. Notification to the RMACC is required, who in turn will notify NIRSC.

Once the incident exceeds the first operational period, all requests for additional firefighting frequencies must be placed through established dispatch channels, the RMACC to the NICC. It may take up to 6 hours for new frequencies to be assigned.

Time Conversion Table – Standard Time

ZULU	ALASKAN	PACIFIC	**MOUNTAIN**	CENTRAL	EASTERN
0000	1400	1600	**1700**	1800	1900
0100	1500	1700	**1800**	1900	2000
0200	1600	1800	**1900**	2000	2100
0300	1700	1900	**2000**	2100	2200
0400	1800	2000	**2100**	2200	2300
0500	1900	2100	**2200**	2300	0000
0600	2000	2200	**2300**	0000	0100
0700	2100	2300	**0000**	0100	0100
0800	2200	0000	**0100**	0200	0300
0900	2300	0100	**0200**	0300	0400
1000	0000	0200	**0300**	0400	0500
1100	0100	0300	**0400**	0500	0600
1200	0200	0400	**0500**	0600	0700
1300	0300	0500	**0600**	0700	0800
1400	0400	0600	**0700**	0800	0900
1500	0500	0700	**0800**	0900	1000
1600	0600	0800	**0900**	1000	1100
1700	0700	0900	**1000**	1100	1200
1800	0800	1000	**1100**	1200	1300
1900	0900	1100	**1200**	1300	1400
2000	1000	1200	**1300**	1400	1500
2100	1100	1300	**1400**	1500	1600
2200	1200	1400	**1500**	1600	1700
2300	1300	1500	**1600**	1700	1800

Time Conversion Table - Daylight Saving Time

ZULU	ALASKAN	PACIFIC	**MOUNTAIN**	CENTRAL	EASTERN
0000	1500	1700	**1800**	1900	2000
0100	1600	1800	**1900**	2000	2100
0200	1700	1900	**2000**	2100	2200
0300	1800	2000	**2100**	2200	2300
0400	1900	2100	**2200**	2300	0000
0500	2000	2200	**2300**	0000	0100
0600	2100	2300	**0000**	0100	0200
0700	2200	0000	**0100**	0200	0300
0800	2300	0100	**0200**	0300	0400
0900	0000	0200	**0300**	0400	0500
1000	0100	0300	**0400**	0500	0600
1100	0200	0400	**0500**	0600	0700
1200	0300	0500	**0600**	0700	0800
1300	0400	0600	**0700**	0800	0900
1400	0500	0700	**0800**	0900	1000
1500	0600	0800	**0900**	1000	1100
1600	0700	0900	**1000**	1100	1200
1700	0800	1000	**1100**	1200	1300
1800	0900	1100	**1200**	1300	1400
1900	1000	1200	**1300**	1400	1500
2000	1100	1300	**1400**	1500	1600
2100	1200	1400	**1500**	1600	1700
2200	1300	1500	**1600**	1700	1800
2300	1400	1600	**1700**	1800	1900

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CHAPTER 60

Chapter 60
Predictive Services

Predictive Services

Predictive Services provides decision-support to the federal, state and local wildland fire agencies for operational management of and strategic planning for firefighting resources. This is accomplished through the collection, analysis and dissemination of information about fire activity, resource status, weather and fuels, and assessments of fire danger and fire potential.

The RMACC will post daily reports and other useful information on the RMACC web page under Predictive Services at http://rmacc.info/intell.php.

It is the RMA Dispatch Center's responsibility to gather and disseminate this information in a timely manner to all agency/unit firefighting personnel within their area of influence.

Daily reports found on the RMACC Web Page and to be distributed by the Dispatch Centers are:

Report Name	Typical Time Available during Fire Season
National SIT Report	0800 hours
RMA Resource Status Summary Reports	0800 hours
RMA Daily Fire Weather Outlook	0800 and 1600 hours
7-Day Fire Potential Outlook	1030 hours
RMA Prescribed Fire Report	1100 hours
RMA SIT Report	1800 hours
Fire Behavior Information	As Updated

All other fire information will be either posted to the web page or electronically mailed to the Dispatch Centers for further distribution. Time critical information will be followed up with a phone call to Dispatch Centers
No official Close of Business Report is required. However, please keep the RMACC informed via telephone of any significant activity (e.g. major resource mobilization, media impacts, etc.) occurring throughout the day or after hours.

When competition for resources exists, the NICC and the RMA MAC will request an Incident Priority List for each Dispatch Center with significant activity. The Priority List shall be submitted to the RMACC upon request. (Refer to NMG 10).

National Incident Status Summary (ICS-209) Guidance

The Incident Status Summary (ICS-209) conforms to National Incident Management System (NIMS) policy. The ICS-209 is used to report large wildland fires and other significant events on lands under federal protection or federal ownership, and is submitted to the RMACC. Lands administered by states and other federal cooperators may also report in this manner.

The ICS-209 program is a Fire and Aviation Management Web (FAMWEB) application referred to as the "209 Program." The ICS-209 is submitted by the agency that has protection responsibility for the incident regardless of who administers the land. If the protection agency is non-federal and chooses not to meet federal reporting standards, then the federal agency which has administrative jurisdiction will submit the incident ICS-209.

The RMACC will ensure that their dispatch centers submit complete and accurate ICS-209 reports for any wildland fire meeting requirements specified in the "When to Report Wildland Fire Incidents with an ICS-209" flowchart (available at http://www.predictiveservices.nifc.gov/intelligence/intelligence.htm**),** or as set in their interagency mobilization guide, if more frequent.

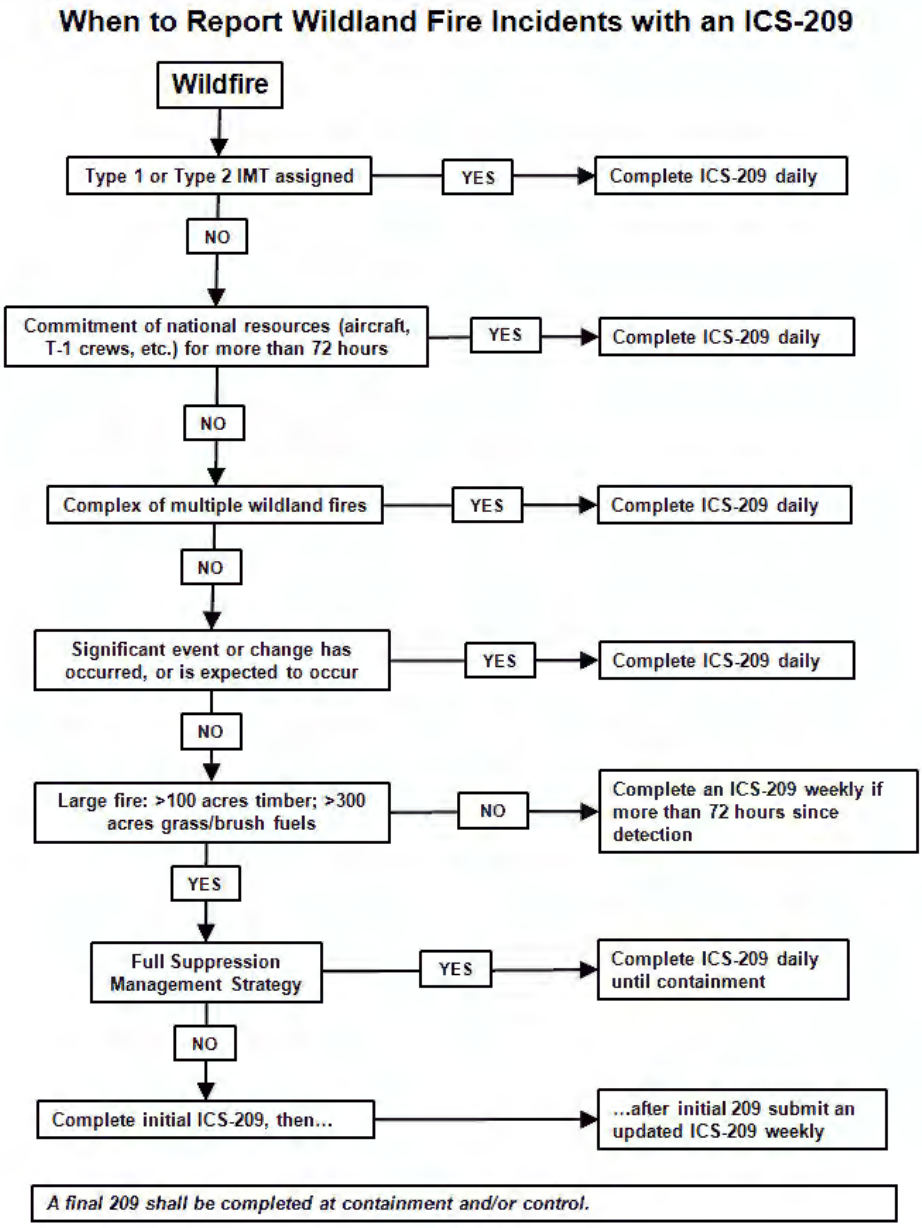
The ICS-209 form can be found in the appendix of this chapter. Specific instructions for entering ICS-209 information using the 209 Program are located in the User's Guide at: http://gacc.nifc.gov/predictive_services/intelligence/niop/programs/sit_209/Help/index.htm**.** The ICS-209 Program and electronic ICS-209 form is located at http://fam.nwcg.gov/fam-web/.

Reporting Wildland Fires

- Wildland fires will be reported based on: Incident Management Team (IMT) and national resources being assigned; significant events having occurred or forecast to occur; acres burned (>100 in timber, >300 in grass/brush fuels); incident strategy (Full Suppression, Point/Zone Protection, Confine, and Monitor); and time since detection (see "When to Report Wildland Fire Incidents with an ICS-209" flowchart below.)
- Wildland fires managed for Complete Perimeter Control (Full Suppression) will submit an ICS-209 daily when that fire meets large fire criteria. The National Interagency Coordination Center classifies large fires as 100 acres or larger in timber fuel types, 300 acres or larger in grass or brush fuel types, or when a Type 1 or 2 IMT is assigned. For fires being managed under this strategy an ICS-209 will be submitted daily until the incident is contained. Refer to the RMG or agency policy for reporting requirements once containment is achieved.
- Wildland fires managed under a Monitor, Confine, or Point Zone management strategy will submit an ICS-209 following the guidelines outlined in the "When to Report Wildland Fire Incidents with an ICS-209" flowchart below. Detailed guidelines and examples are in the "When to Report Wildland Fire Incidents" document on the National Intelligence web page: http://www.predictiveservices.nifc.gov/intelligence/intelligence.htm. The minimum ICS-209 requirements for these types of fires are:
    - Create an initial ICS-209 and complete all required blocks including block 47 (Remarks).
    - Complete blocks 12 through 15, Approval and Routing Information.
    - If national resources are committed to the incident, complete block 48 to 52, Resource Commitment Summary.
    - Additional reporting blocks can be completed to meet the needs of the incident or GACC.

- Wildland fires within a complex should be aggregated and included on one ICS-209. A complex is two or more individual incidents located in the same general proximity, which are assigned to a single incident commander or unified command.
- In order to maintain data management, reporting integrity, resource management and cost accountability for individual wildland fire incidents within a parent complex and to facilitate the necessary data sharing between fire application systems through IRWIN, the following complex reporting business practices for ICS-209 and IRWIN must be followed.
    - The complex parent is a unique record and is not a converted wildland fire incident record. The complex parent record should be created in an IRWIN recognized CAD system, or as an individual ICS-209. The parent incident shall include the word "Complex" and not be named from an existing fire.
    - Individual child incidents can be added to a complex within the 209 program as either preexisting ICS-209 incidents or as individual IRWIN incidents created from another IRWIN recognized application using the 'Complex by Incident' button in block 7 of the 209 data entry screen. Finalize an existing ICS-209 child incident prior to associating the incident to the parent Complex.
    - Incidents that do not have a unique IRWIN record cannot be added to the complex using the 'Complex by Incident' button.
    - If an incident is removed from the complex, it may resume ICS-209 reporting as an individual incident if appropriate, using normal ICS-209 reporting guidelines.

- Prescribed fires will be reported following the requirements outlined in the **When to Report Wildland Fire Incidents with an ICS-209** flowchart.
- Other Incidents (Non-Fire) An ICS-209 will be submitted for other events in which a significant commitment of wildland fire resources has occurred, or when a Type 1 or 2 Interagency Incident Management Team has been assigned.


When to Report Wildland Fire Incidents with an ICS-209
Wildfire
Type 1 or Type 2 IMT assigned
YES
Complete ICS-209 daily
NO
Commitment of national resources (aircraft, T-1 crews, etc.) for more than 72 hours
YES
Complete ICS-209 daily
NO
Complex of multiple wildland fires
YES
Complete ICS-209 daily
NO
Significant event or change has occurred, or is expected to occur
YES
Complete ICS-209 daily
NO
Large fire: >100 acres timber; >300 acres grass/brush fuels
NO
Complete an ICS-209 weekly if more than 72 hours since detection
YES
Full Suppression Management Strategy
YES
Complete ICS-209 daily until containment
NO
Complete initial ICS-209, then...
...after initial 209 submit an updated ICS-209 weekly
A final 209 shall be completed at containment and/or control.

Definitions:
Significant number of resources: Non-local resources that are required to manage an incident that exceeds the capacity of the local unit. Significant commitment of national resources is defined as: One or more type 1 crews, one or more fixed wing or rotor wing aircraft.

Monitor is the systematic process of observing, collecting and recording of fire-related data, particularly with regards to fuels, topography, weather, fire behavior, fire effects, smoke, and fire location. This may be done onsite, from a nearby or distant vantage point in person or using a sensor, or through remote sensing (aircraft or satellite).

Confine is to restrict a wildfire to a defined area, using a combination of natural and constructed barriers that will stop the spread of the fire under the prevailing and forecasted weather conditions until out. This means, "some action is or has been taken" (line construction, bucket drops, etc.) to suppress portions of the fire perimeter.

Point or Zone Protection involves protecting specific points from the fire while not actively trying to line the entire fire edge. Points being protected may be communities, individual homes, communication sites, areas of high resource value, etc.

Full Suppression implies a strategy to "put the fire out" as efficiently and effectively as possible, while providing for firefighter and public safety. To complete a fireline around a fire to halt fire spread, and cool down all hot spots that are immediate threat to control line or outside the perimeter, until the lines can reasonably be expected to hold under foreseeable conditions. Synonymous with "Full Perimeter Containment" and "Control."

For more information refer to "When to Report Wildland Fire Incidents" document on the web at: http://www.predictiveservices.nifc.gov/intelligence/intelligence.htm.

Rocky Mountain Area Incident Status Summary (ICS-209) Guidance
ICS-209s are required for all managed large incidents within the RMA and should be submitted through normal dispatch channels with the information included in the Daily Situation Report. ICS 209s are due at the same time as the Daily Situation Report unless a later time is negotiated. In the event an IMT is assigned to an incident, it is the IMT's responsibility to complete and submit the ICS-209 to the Dispatch Center for further consolidation of information. When an IMT is assigned to a large incident, they may have the capability to enter the ICS-209 directly into the web interface at http://fam.nwcg.gov/fam-web/. This is an option available to the IMTs to streamline and improve timeliness of information transfer. Use of this system and process requires an agreement between the IMT and the Host Dispatch Center. At a minimum, ICS-209s will be completed daily until fires have been contained; at containment, a final report may be submitted, based on management strategy. If a final report is not completed at containment, daily reports will continue to be submitted until a final report is completed.

NOTE: The RMACC Center Manager reserves the right to request a higher level of reporting when it is deemed necessary. For example, at Preparedness Levels 4 and above, a greater competition for resources exists. In order to prioritize incidents and allocate resources effectively and efficiently, more detailed information on activity will be needed.

Rocky Mountain Area Interagency Situation Report Guidance
(Refer to NMG 60)
The Situation (SIT) Report reporting period is from 0001 to 2400 daily. To allow the RMACC sufficient time for problem resolution/correction and to prepare the RMA Wide Report, Dispatch Centers are to have their local SIT Reports entered into the database by the following time schedule, unless an alternate time is negotiated. The User Guide for the Interagency Situation Report can be found at the following location: http://www.predictiveservices.nifc.gov/intelligence/intelligence.htm.

As per national direction, **reporting is required for all fire activity year-round** through the Interagency Situation Report:

Daily: May through October by 1800.

November through April, daily by 1600, when either of the following conditions are met:

- Wildfire activity occurs (includes monitor/confine/contain)
- Prescribed Fire activity (includes pile burning and black lining). During unstaffed periods, report planned prescribed fire projects occurring on weekends to the RMACC Intelligence Unit the Friday prior to project date.
- A unit's Fire Danger is reported as very high or extreme.

If a Dispatch Center has reportable activity during November through April, the Dispatch Center will inform the RMACC prior to 1500 on the day of planned submission, when possible.

The following offices should report directly for their areas of influence.

(CPC)	**Casper Interagency Dispatch Center**
(CDC)	**Cody Interagency Dispatch Center**
(CRC)	**Craig Interagency Dispatch Center**
(DRC)	**Durango Interagency Dispatch Center**
(FTC)	**Ft. Collins Interagency Dispatch Center**
(GJC)	**Grand Junction Interagency Dispatch Center**
(GPC)	**Great Plains Interagency Dispatch Center**
(MTC)	**Montrose Interagency Dispatch Center**
(PBC)	**Pueblo Interagency Dispatch Center**
(RWC)	**Rawlins Interagency Dispatch Center**

In the Remarks Section of the SIT Report, please include the following:

- A brief write-up about any IA activity occurring and resources being used.
- A weather synopsis for your general vicinity.
- A brief analysis / prognosis.
- Any other information you would like to add.
- Prescribed fire information must be detailed and include the names of the specific contingent resources. Dispatch Centers should ensure Year-To-Date numbers are accurate and updated **as necessary.**

Incident Management Situation Report (IMSR)
(Refer to NMG 60)

7 Day Significant Fire Potential Outlook
(Refer to NMG 60)

National Wildland Significant Fire Potential Outlook
(Refer to NMG 60)

GACC Monthly Fire Potential Outlooks
(Refer to NMG 60)

Fuel and Fire Behavior Advisories
(Refer to NMG 60)
The RMACC Predictive Services and Coordination staff at all levels should be involved with the issuance of any fuels/fire behavior advisories covering a large percentage of the RMA. The advisory can carefully consider both the content and intended audience of the messages. When a situation arises that warrants an advisory message:
Determine area of extent

- If local area only (single agency unit or county) – Local area should issue advisory or safety message (Use of Standard Template strongly recommended). No other RMACC action needed.
- If geographic in scope (multiple units, counties, or significant portion of geographic area):
  - Involve and coordinate with the RMACC Predictive Services unit staff to get their input/feedback.
  - Review & tailor message for content, accuracy, suitability and distribution (Predictive Services staffs at Geographic and/or National levels, as appropriate, will coordinate to ensure message is appropriate for entire area of concern).

Post advisory according to protocols listed below.

Posting Protocols

- Use Standard Template (available from the RMACC Predictive Services)
- Send completed advisory to the RMACC Predictive Services who will send to National Predictive Services for approval.
- Create a detailed map using available tools to draw affected area and to coordinate with neighboring units.
- The NICC will post to a national map and archive messages.

- It is recommended that URLs and email messages posted or sent out by the RMACC informing users about the advisory contain a link to the NICC Fuels/Fire Behavior web page and national map (this will inform users about other fuels/fire behavior advisories that are posted across the country).
  - The RMACC web pages should link to the NICC page for both advisory text and national map.
  - The RMACC Predictive Services will determine when the advisory message is no longer valid and contact the NICC to remove the advisory link off the webpage and map.

Resource Status Reports: (Refer to RMG 20)

The RMACC will gather resource status information from ROSS daily, and will post Resource Status Reports on the RMACC web page during fire season. Dispatch Centers should ensure resource status is accurate in ROSS.

The RMACC will notify Dispatch Centers in the event that necessary information is not available through ROSS. Dispatch Centers will then be required to provide resource status information for the critical resources listed below by 1000.

RMA Resources	**National Resources**
TEAMS	
Type 2 IMTs	Type 1 IMT
Geographic Area Buying Teams	National Buying Teams
	Area Command
OVERHEAD	
WFM – Type 1,2	
CREWS	
Type 2 & 2 IA Crews	Type 1 Crews
	Smokejumpers
AIRCRAFT	
Type 3 Helicopters	Airtankers
SEATs	Type 1 & 2 Helicopters
	Lead Planes/ASM
	Smokejumper Aircraft
SUPPLIES	
Cache Van	NFES 4390 Starter Systems

Prescribed Fire Notification

FMOs should submit to their dispatch center, prescribed fire information one (1) day prior to the day of planned ignition. The information is to be input into the Daily Situation Report, Prescribed Fire Information. (Input the information off the Prescribed Fire Plan).

The RMACC Intelligence Unit will pull a Planned Prescribed Fire Report daily at 1100, post it to the RMACC website and fax it to the FAA. If a center enters a report after 1100 for the same day, the center will notify the RMACC to allow for updating of the report.

RMA Annual Fire Report

The RMACC Intelligence Unit must generate an annual report pertaining to the year's fire and all-hazard related activities. The following information is requested from all units and Dispatch Centers within the RMA and should be organized as a Dispatch Center Annual Report.

Narrative: Short narrative statement describing the season and how it compares to normal. It should include a summary of fire weather, resource mobilization, and other significant events.

Fire Statistics: Number and acres of lightning fires and human caused fires by Agency and Unit.

Resource Order Statistics via Cognos: Orders for all functional areas (Overhead, Crews, Equipment, Supplies, and Aircraft) separated by Agency and Unit.

Aviation Statistics: For identified bases, gallons of retardant pumped and missions flown by airtankers. Also include a detailed breakdown of RMA home airtankers, total gallons delivered, and missions flown.

Resource Record Keeping

Dispatch centers will be responsible for accurately tracking resources on incidents not in ROSS, i.e. Initial Attack. Resource information will be requested from each dispatch center by the RMACC on January 15 annually and should include resources tracked in ROSS and on non-ROSS incidents within their area. Contact the RMACC Intelligence unit for the specific information requirements.

Reports, Due Dates, and Times

Below is a quick reference list of reports due, usually during fire season, and their due dates and times. Core fire season is considered May through October. Dates will vary according to fire activity and potential.

REPORTS DUE	TIME FRAMES
Daily Resource Status	Updated in ROSS by 0800. Recommend updating resource status the evening prior or as status changes. (May - Oct)
Interagency Situation Report	Due by 1800 daily unless directed or negotiated, otherwise May through October. Due by 1600 unless directed or negotiated otherwise, November through April if either of 2 criteria listed in this chapter are met.
Incident Status Summary (ICS-209)	Due times are identical to the Interagency Situation Report unless a later time is negotiated. Required for wildfires in Timber 100+ ac., Grass 300+ ac. (Refer to NMG 20)
Priority List	Upon request. (Refer to NMG 10 & RMG 10)
Prescribed Fire Report	Due prior to the day of the burn. Notify FAA, cooperators, dispatch centers, and area dispatch offices.
Annual Fire Report	Actual stats and Center Annual Reports due to the RMACC by January 15.

Wildland Fire Decision Support System (WFDSS)

The Wildland Fire Decision Support System (WFDSS) is a web-based decision support system that provides a single dynamic documentation system. The WFDSS incorporates fire behavior modeling, economic principles, and information technology to support effective wildland fire decisions consistent with Land Use and Fire Management Plans. The WFDSS aids agency administrators in making informed decisions for all fires that escape initial attack or exceed initial response.

Use of the WFDSS is required for all federal agencies. Specific direction regarding the use of the WFDSS will be issued by each agency.

Request for WFDSS Decision Support

For WFDSS support needs on emerging incidents (e.g., Fire Behavior Modeling, Risk/Values Assessments, and/or technical assistance) that cannot be met at the local unit level, the unit's first point of contact is their Agency's identified Point of Contact (POC). See POC table below. For on-going incidents or incidents with assigned incident management organizations, WFDSS support needs (e.g. Fire Behavior Analyst (FBAN), Long Term Analyst (LTAN), Geospatial Analyst, or Strategic Operations Planner (SOPL), should be coordinated with the in-place organization and an order for the needed additional support should be placed in ROSS. Consult with your Agency POC for assistance in identifying personnel with the needed WFDSS experience and skills.

If the Agency POC is not available, refer to the RMA Agency WFDSS POC table below and call another Agency's POC to request WFDSS support. If no contact can be made in a reasonable amount of time with any RMA Agency WFDSS POC, a request can be made to the National Fire Decision Support Center (NFDSC) at 208-473-8107.

The NFDSC has been established to support analysis used in wildland fire decision making and WFDSS. The support provided by NFDSC consists of developing, improving, and increasing production and operational use of decision support products.

WFDSS Decision Approval and Publication

Decisions in WFDSS are approved and published by the appropriate agency administrator as defined in the current version of the Interagency Standards for Fire and Fire Aviation Operations - Redbook.

WFDSS Decision Support Point of Contacts

Additional decision support can be obtained through each agencies WFDSS point of contacts.

Agency	Name	Number
USFS	Mark Nelson	970-295-6685
BLM CO/BLM WY	Gwenan Poirier	303-239-3689
NPS	Nate Williamson	970-227-7708
NPS	Cody Wienk	402-661-1770
FWS	Rich Sterry	303-236-8124
FWS	Shane DelGrosso	605-352-5894 x116
BIA	Reeve Armstrong	303-921-2196
BIA	Rich Gustafson	970-749-3558
State of Colorado	Rocco Snart	303-445-4364

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UNIT: National Interagency Coordination Center	**TELEPHONES:** 208-387-5400
ADDRESS: 3833 S. Development Ave. Boise, ID 83705-5354	**NIGHT OR 24 HOUR TELEPHONE NUMBERS:** 208-387-5400 800-994-6312
FAX NUMBERS: 208-387-5663 208-387-5414	**ELECTRONIC MAIL:** COD@blm.gov **WEBSITE:** www.nifc.gov/news/nicc.html

...IF NO ANSWER ON ABOVE NUMBERS, CALL IN ORDER LISTED BELOW...

NAME TITLE	OFFICE PHONE EXT.	CELL PHONE PAGER	HOME PHONE ELECTRONIC MAIL
Stingley-Russell, Susie Center Manager	208-387-5662		
Wamack, Chuck Asst. Center Manager	208-387-5418		
Fletcher, Bill Asst. Center Manager	208-387-5656		
Peterson, Sean Intelligence Coordinator	208-387-5093		
Luttrell, Karla Emergency Ops Coordinator	208-387-5400		
Hendren, Dave Emergency Ops Coordinator	208-387-5400		
Simontacchi, Jarrod Emergency Ops Coordinator	208-387-5400		
Squires, Rick Emergency Ops Coordinator	208-387-5400		
Delgado, Ed Fire Weather Program Manager	208-387-5451		
Vacant Fire Weather Assistant Program Manager	208-387-5449		

Sullens, Jeremy Fire Analyst	208-387-5439		
ForrestDavis, Zoila Administrative Assistant	208-387-5400		

REMARKS:

UNIT: Rocky Mountain Area Coordination Center	**TELEPHONES:** 303-445-4300
ADDRESS: 2850 Youngfield Street Lakewood, CO 80215	**NIGHT OR 24 HOUR TELEPHONE NUMBERS:** 303-445-4300
FAX NUMBERS: 888-850-2925	**ELECTRONIC MAIL:** rmacoordctr@gmail.com **WEBSITE:** http://www.rmacc.info/

...IF NO ANSWER ON ABOVE NUMBERS, CALL IN ORDER LISTED BELOW...

NAME TITLE	OFFICE PHONE EXT.	CELL PHONE PAGER	HOME PHONE ELECTRONIC MAIL
Swendsen, Scott Center Manager	303-445-4302	303-968-5353	sswendsen@fs.fed.us
Bartter, Glenn Deputy Center Manager	303-445-4301	303-883-0080	gbartter@fs.fed.us
Juhola, Rob Assistant Area Coordinator	303-445-4304		robert.juhola@bia.gov
Bozarth, Debbie Logistics Coordinator	303-445-4300	303-478-2643	dbozarth@fs.fed.us
Drapeau, Bruce Logistics Coordinator	303-445-4300	303-906-2825	bdrapeau@fs.fed.us
Baldauf, Amy Logistics Coordinator	303-445-4300	303-547-2995	abaldauf02@fs.fed.us
Hunt, Melissa DFPC Logistics Dispatcher	303-445-4300		melissa.hunt@state.co.us
Vacant DFPC Logistics Dispatcher	303-445-4300		
Perea, Marco Intelligence Coordinator	303-445-4303	303-478-2688	mperea@.blm.gov
Vacant DFPC Ass't Intel Coordinator			

Malcolm, Brooke RMACC Business Manager	303-445-4306	303-386-5152	brooke_malcolm@fws.gov
Mathewson, Tim Fire WX Meteorologist - Program Mgr	303-445-4309	720-273-1799	t2mathew@blm.gov
Mann, Russ Fire Weather Meteorologist	303-445-4308	720-273-4628	rmann@blm.gov
RMACC Information Information Coordinator	303-445-4322 303-445-4323		rmaccfireinfo@gmail.com

REMARKS:

Additional FAX lines to a dedicated Machine: 303-445-4319 (Aircraft Desk) and 303-445-4321 (Front Desk). The 888 number listed above is to an electronic inbox.

UNIT: Casper Interagency Dispatch Center	**TELEPHONES:** 307-261-7691
ADDRESS: 2987 Prospector Drive Casper, WY 82604	**NIGHT OR 24 HOUR TELEPHONE NUMBERS:** 800-295-9952
FAX NUMBERS: 307-261-7646	**ELECTRONIC MAIL:** casper_dispatch@yahoo.com **WEBSITE:** http://gacc.nifc.gov/rmcc/dispatch_centers/r2cpc/ind

...IF NO ANSWER ON ABOVE NUMBERS, CALL IN ORDER LISTED BELOW...

NAME TITLE	OFFICE PHONE EXT.	CELL PHONE PAGER	HOME PHONE ELECTRONIC MAIL
Niebauer, Rob Center Manager	307-261-7694		
Fortner, Luke Assistant Center Manager	307-261-7692		
Adams, Kyle Aviation Dispatcher / IA	307-261-7692		
Vacant Intelligence Dispatcher / IA	307-261-7692		
Seasonal Dispatcher	307-261-7691		

REMARKS:

UNIT: Cody Interagency Dispatch Center	**TELEPHONES:** 307-578-5740
ADDRESS: 2501 Wright Brothers Road Cody, WY 82414	**NIGHT OR 24 HOUR TELEPHONE NUMBERS:** 800-295-9954
FAX NUMBERS: 307-578-5759	**ELECTRONIC MAIL:** codydispatch@gmail.com **WEBSITE:** http://gacc.nifc.gov/rmcc/dispatch_centers/r2cdc

...IF NO ANSWER ON ABOVE NUMBERS, CALL IN ORDER LISTED BELOW...

NAME TITLE	OFFICE PHONE EXT.	CELL PHONE PAGER	HOME PHONE ELECTRONIC MAIL
Hutton, Cathy Center Manager	307-578-5757		
Janota, Nick Asst. Center Mgr.	307-578-5747		
Williamson, Katie Lead IA Dispatcher-Zone Training Rep.	307-578-5749		
Taylor, Josh IA Dispatcher	307-578-5740		

REMARKS:

Fire Phone 800-295-9954 - The fire phone has a 24-hour answering service.

UNIT: Craig Interagency Dispatch Center	**TELEPHONES:** 970-826-5037
ADDRESS: 455 Emerson Street Craig, CO 81625	**NIGHT OR 24 HOUR TELEPHONE NUMBERS:** 970-826-5037
FAX NUMBERS: 970-826-5051 970-826-5055	**ELECTRONIC MAIL:** craiginteragency@gmail.com **WEBSITE:** gacc.nifc.gov/rmcc/dispatch_centers/r2crc

...IF NO ANSWER ON ABOVE NUMBERS, CALL IN ORDER LISTED BELOW...

NAME TITLE	OFFICE PHONE EXT.	CELL PHONE PAGER	HOME PHONE ELECTRONIC MAIL
Butler, Pat Center Manager	970-826-5034		
Vacant Asst. Center Manager	970-826-5014		
Hutton, Eddie I/A Dispatcher	970-826-5020		
Armetta, Jenny I/A Dispatcher	970-826-5032		
Burkett, Lindsey I/A Dispatcher	970-826-5054		

REMARKS:

The 24-hour number will transfer you to the answering service who will then contact the on-call dispatcher during fire season.

UNIT: Durango Interagency Dispatch Center	**TELEPHONES:** 970-385-1324
ADDRESS: 15 Burnett Court Durango, CO 81301	**NIGHT OR 24 HOUR TELEPHONE NUMBERS:** 970-385-1324
FAX NUMBERS: 970-385-1386	**ELECTRONIC MAIL:** durangodispatch@gmail.com **WEBSITE:** http://gacc.nifc.gov/rmcc/dispatch_centers/r2drc

...IF NO ANSWER ON ABOVE NUMBERS, CALL IN ORDER LISTED BELOW...

NAME TITLE	OFFICE PHONE EXT.	CELL PHONE PAGER	HOME PHONE ELECTRONIC MAIL
Hodnett, Kathy Center Manager	970-385-1335		
Moore, Justin Assistant Center Manager	970-385-1324		
Begay, Sandy Lead Aircraft Dispatcher	970-385-1324		
Cave, Heather Initial Attack Dispatcher	970-385-1324		
Lenihan, David Intelligence / Logistics Dispatcher	970-385-1324		
Bustamante, Richard San Juan National Forest FMO	970-385-1346		
Flinders, Jerran San Juan National Forest AFMO/UAO	970-375-3334		
Bond, Ann Fire Information Officer	970-385-1219		
French, Craig Tanker Base Manager	970-375-3322		

REMARKS:

Fire Information Officer FAX- 970-375-2331. Use the 970-394-4323 (cellular) number above in case the main phone system is out.

UNIT: Fort Collins Interagency Dispatch Center	**TELEPHONES:** 970-295-6800
ADDRESS: 2150 Centre Avenue, Building E Fort Collins, CO 80526 - 8119	**NIGHT OR 24 HOUR TELEPHONE NUMBERS:** 970-295-6800
FAX NUMBERS: 970-295-6801	**ELECTRONIC MAIL:** fortcollinsdispatch@yahoo.com **WEBSITE:** http://gacc.nifc.gov/rmcc/dispatch_centers/r2ftc/

...IF NO ANSWER ON ABOVE NUMBERS, CALL IN ORDER LISTED BELOW...

NAME TITLE	OFFICE PHONE EXT.	CELL PHONE PAGER	HOME PHONE ELECTRONIC MAIL
Kern, Tracey Dispatch Center Mgr.	970-295-6830		
Molinari, Scott Assistant Center Manager	970-295-6831		
Stevi, John Aircraft Dispatcher	970-295-6800		

REMARKS:

UNIT: Grand Junction Interagency Dispatch Center	**TELEPHONES:** 970-257-4800
ADDRESS: 2774 Landing View Lane Grand Junction, CO 81506	**NIGHT OR 24 HOUR TELEPHONE NUMBERS:** 970-257-4800
FAX NUMBERS: 970-257-4855 970-257-4847	**ELECTRONIC MAIL:** gjcdispatch@gmail.com **WEBSITE:** http://gacc.nifc.gov/rmcc/dispatch_centers/r2gjc

...IF NO ANSWER ON ABOVE NUMBERS, CALL IN ORDER LISTED BELOW...

NAME TITLE	OFFICE PHONE EXT.	CELL PHONE PAGER	HOME PHONE ELECTRONIC MAIL
Scronek, Don Center Manager	970-257-4817		
Helterline, Maria Assistant Center Manager	970-257-4816		
Stahlin, Dezarae Lead Dispatcher/Initial Attack	970-257-4800		
Filippone,Tim Lead Dispatcher/Aircraft	970-257-4812		
Vacant Intel/Logistics	970-257-4800		
Vacant Unit Aviation Officer	970-683-7701		
Goeden, Adam Air Tanker Base Manager	970-683-7710		
Vacant Assistant Air Tanker Base Manager	970-683-7711		
Murray, Courtney Administrative Assistant	970-257-4805		

REMARKS:

UNIT: Great Plains Interagency Dispatch Center	**TELEPHONES:** 605-399-3160 800-275-4955
ADDRESS: 8123 S. Hwy 16 Rapid City, SD 57702	**NIGHT OR 24 HOUR TELEPHONE NUMBERS:** 605-399-3160
FAX NUMBERS: 605-343-5075	**ELECTRONIC MAIL:** **WEBSITE:** http://gacc.nifc.gov/rmcc/dispatch_centers/r2gpc

...IF NO ANSWER ON ABOVE NUMBERS, CALL IN ORDER LISTED BELOW...

NAME TITLE	OFFICE PHONE EXT.	CELL PHONE PAGER	HOME PHONE ELECTRONIC MAIL
Fox, Sheri Center Manager	605-399-3199		
Hinker, Angie Assistant Center Manager	605-399-3175		
Reiter, Paul SDS Assistant Center Mgr.	605-399-3160		
Solvie, Andy Lead USFS Dispatcher	605-399-3160		
Rothleutner, Melody Lead BIA Dispatcher	605-399-3160		
Price, Corine SDS Comm Spec.	605-399-3160		
Clary, Shannon SDS Comm Spec.	605-399-3160		
PIO, On Call IOF	605-923-8868		

REMARKS:

UNIT: Montrose Interagency Dispatch Center	**TELEPHONES:** 970-249-1010
ADDRESS: 2465 South Townsend Ave. Montrose, CO 81401	**NIGHT OR 24 HOUR TELEPHONE NUMBERS:** 970-249-1010
FAX NUMBERS: 970-240-5369	**ELECTRONIC MAIL:** montrosedispatch@yahoo.com **WEBSITE:** http://gacc.nifc.gov/rmcc/dispatch_centers/r2mtc

...IF NO ANSWER ON ABOVE NUMBERS, CALL IN ORDER LISTED BELOW...

NAME TITLE	OFFICE PHONE EXT.	CELL PHONE PAGER	HOME PHONE ELECTRONIC MAIL
Jossart, Becky Dispatch Center Manager	970-240-5359		
Ferguson, Jason Assistant Center Manager	970-240-5354		
Vacant Lead Dispatcher	970-240-5352		
Heckel, Matthew IA Dispatcher	970-240-5404		

REMARKS:

UNIT: Pueblo Interagency Dispatch Center	**TELEPHONES:** 719-553-1600
ADDRESS: 2840 Kachina Drive Pueblo, CO 81008	**NIGHT OR 24 HOUR TELEPHONE NUMBERS:** 719-553-1600
FAX NUMBERS: 719-553-1616	**ELECTRONIC MAIL:** copbcdispatch@gmail.com **WEBSITE:** http://gacc.nifc.gov/rmcc/dispatch_centers/r2pbc

...IF NO ANSWER ON ABOVE NUMBERS, CALL IN ORDER LISTED BELOW...

NAME TITLE	OFFICE PHONE EXT.	CELL PHONE PAGER	HOME PHONE ELECTRONIC MAIL
Vacant Dispatch Center Manager	719-553-1639		
French, Cindy Assistant Center Manager	719-553-1615		
Toft, Eric BLM Lead Dispatcher	719-553-1600		
Barter, Tiphaine USFS Initial Attack Dispatcher	719-553-1600		
Quiroz, Krystal USFS Dispatcher	719-553-1600		

REMARKS:

UNIT: Rawlins Interagency Dispatch Center	**TELEPHONES:** 800-295-9953
ADDRESS: 1300 North 3rd Street P.O. Box 2407 Rawlins, WY 82301	**NIGHT OR 24 HOUR TELEPHONE NUMBERS:** 800-295-9953
FAX NUMBERS: 307-328-4229	**ELECTRONIC MAIL:** Rawlinsdispatch@yahoo.com **WEBSITE:** http://gacc.nifc.gov/rmcc/dispatch_centers/r2rwc/rwc.

...IF NO ANSWER ON ABOVE NUMBERS, CALL IN ORDER LISTED BELOW...

NAME TITLE	OFFICE PHONE EXT.	CELL PHONE PAGER	HOME PHONE ELECTRONIC MAIL
Flodeen, Tina Dispatch Center Manager	307-328-4397		
Batchelder, Gary Assist. Center Manager	307-328-4391		
Finnegan,Wendy Logistics Dispatcher	307-328-4392		
Vacant Aircraft / Initial Attack Dispatcher	307-328-4398		

REMARKS:

UNIT: Rocky Mountain Area Fire Cache	**TELEPHONES:** 303-202-4940 303-202-4944
ADDRESS: Denver Federal Center, Building 810, Door N27 PO BOX 25507 Lakewood, CO 80225-0507	**NIGHT OR 24 HOUR TELEPHONE NUMBERS:** 303-202-4940 928-642-4653
FAX NUMBERS: 303-202-4965	**ELECTRONIC MAIL:** rockymountainfirecache@gmail.com **WEBSITE:** http://gacc.nifc.gov/rmcc/logistics/cache/index.html

...IF NO ANSWER ON ABOVE NUMBERS, CALL IN ORDER LISTED BELOW...

NAME TITLE	OFFICE PHONE EXT.	CELL PHONE PAGER	HOME PHONE ELECTRONIC MAIL
Medina,Marcus Cache Manager	303-202-4943		
Ontiveros, Humberto Assistant Cache Manager	303-202-4941		
Reynoso, Ricardo Supply Technician	303-202-4944		
Gallardo, Ivan Materials Handler Supervisor	303-202-4945		
Mixon, Matt Materials Handler	303-202-4940		

REMARKS:

CHAPTER 80

CHAPTER 80 – FORMS

General

Complexity Analysis Form	(has no NFES or ICS#)
Demobilization Checkout Form	(NFES 1353, ICS 221)
Documentation Form	(has no NFES or ICS#)
Emergency Release/Message Form	(has no NFES or ICS#)
Fire Weather Special Forecast Request (Spot) Form	(WS Form D1, 1-2005)
Resource Extension Request Form	(January 2013 version)
Resource Order Form	(NFES 2213, ICS 259-13)
Unit Log Form	(ICS 214)
Wildland Fire Entrapment/Fatality Form	(NFES 0869, PMS 405-1, 1/2016 version)

Aircraft

Aircraft Dispatch Form	(RMA version 4/2016)
Aircraft Flight Request/Schedule Form	(9400-1a)
Temporary Flight Restriction (TFR) Form	(2/15 version)
Temporary Tower Request Form	(version unknown)
Infrared Aircraft Scanner Request Form	(version unknown)
RMA ROSS Aircraft Request Form	(version 1.2)
DFPC Multi-Mission Aircraft Request Form	(Revision 2/22/16)

Crews

Passenger and Cargo Manifest Form	(SF-245 – TEST, 5/14)
RMA ROSS Crew Request Form	(version 1.2)

Equipment/Supplies

Incident Replacement Requisition Form	(NFES 001300, OF-315)
Mobile Food & Shower Service Request Form	(AG-024B-S-07-9001)
RMA ROSS Equipment Request Form	(version 1.3)
RMA ROSS Supply NFES Request Form	(version 1.2)
RMA ROSS Supply NON NFES Request Form	(version 1.2)

Overhead

Preparedness/Detail Request Form	(version unknown)
RMA ROSS Overhead Request Form	(version 1.2)

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APPENDIX

APPENDIX

Appendix A Sunset/Sunrise Tables

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ALAMOSA, COLORADO

Astronomical Applications Dept.
U. S. Naval Observatory

Location: W105° 52', N37° 28'

Mountain Standard Time

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0718	1656	0707	1727	0634	1758	0548	1827	0508	1854	0444	1919	0447	1928	0508	1911	0534	1832	0559	1746	0629	1705	0700	1646
02	0718	1657	0706	1728	0633	1759	0547	1828	0507	1855	0444	1920	0447	1928	0509	1910	0535	1830	0600	1744	0630	1704	0701	1645
03	0718	1658	0705	1729	0631	1800	0545	1829	0505	1856	0443	1920	0447	1928	0510	1909	0536	1829	0601	1743	0631	1703	0702	1645
04	0718	1658	0705	1731	0630	1801	0544	1829	0504	1857	0443	1921	0448	1928	0511	1908	0537	1827	0602	1741	0632	1702	0703	1645
05	0718	1659	0704	1732	0628	1802	0542	1830	0503	1857	0443	1922	0449	1928	0512	1907	0538	1826	0603	1740	0633	1701	0703	1645
06	0718	1700	0703	1733	0627	1803	0541	1831	0502	1858	0443	1922	0449	1927	0512	1906	0538	1824	0604	1738	0634	1700	0704	1645
07	0718	1701	0702	1734	0625	1804	0539	1832	0501	1859	0442	1923	0450	1927	0513	1904	0539	1823	0605	1737	0635	1659	0705	1645
08	0718	1702	0701	1735	0624	1805	0538	1833	0500	1900	0442	1923	0450	1927	0514	1903	0540	1821	0606	1735	0636	1658	0706	1645
09	0718	1703	0700	1736	0623	1806	0536	1834	0459	1901	0442	1924	0451	1926	0515	1902	0541	1819	0607	1734	0637	1657	0707	1645
10	0718	1704	0659	1737	0621	1807	0535	1835	0458	1902	0442	1924	0452	1926	0516	1901	0542	1818	0607	1733	0638	1656	0708	1646
11	0718	1705	0658	1738	0620	1808	0534	1836	0457	1903	0442	1925	0452	1926	0517	1900	0543	1816	0608	1731	0639	1655	0708	1646
12	0718	1706	0657	1739	0618	1809	0532	1837	0457	1904	0442	1925	0453	1925	0517	1859	0543	1815	0609	1730	0640	1655	0709	1646
13	0718	1707	0655	1740	0617	1809	0531	1838	0456	1905	0442	1926	0454	1925	0518	1857	0544	1813	0610	1728	0642	1654	0710	1646
14	0717	1708	0654	1742	0615	1810	0529	1838	0455	1905	0442	1926	0454	1924	0519	1856	0545	1812	0611	1727	0643	1653	0710	1646
15	0717	1709	0653	1743	0614	1811	0528	1839	0454	1906	0442	1926	0455	1924	0520	1855	0546	1810	0612	1726	0644	1652	0711	1647
16	0717	1710	0652	1744	0612	1812	0527	1840	0453	1907	0442	1927	0456	1923	0521	1854	0547	1809	0613	1724	0645	1652	0712	1647
17	0716	1711	0651	1745	0611	1813	0525	1841	0452	1908	0442	1927	0456	1923	0522	1852	0548	1807	0614	1723	0646	1651	0712	1647
18	0716	1712	0650	1746	0609	1814	0524	1842	0452	1909	0442	1927	0457	1922	0523	1851	0548	1806	0615	1721	0647	1651	0713	1648
19	0716	1713	0648	1747	0608	1815	0523	1843	0451	1910	0443	1927	0458	1921	0523	1850	0549	1804	0616	1720	0648	1650	0714	1648
20	0715	1714	0647	1748	0606	1816	0521	1844	0450	1910	0443	1928	0459	1921	0524	1848	0550	1803	0617	1719	0649	1649	0714	1649
21	0715	1715	0646	1749	0605	1817	0520	1845	0450	1911	0443	1928	0459	1920	0525	1847	0551	1801	0618	1718	0650	1649	0715	1649
22	0714	1716	0645	1750	0603	1818	0519	1846	0449	1912	0443	1928	0500	1919	0526	1846	0552	1759	0619	1716	0651	1648	0715	1650
23	0713	1717	0643	1751	0602	1819	0517	1847	0448	1913	0443	1928	0501	1919	0527	1844	0553	1758	0620	1715	0652	1648	0715	1650
24	0713	1718	0642	1752	0600	1820	0516	1848	0448	1914	0444	1928	0502	1918	0528	1843	0553	1756	0621	1714	0653	1648	0716	1651
25	0712	1720	0641	1753	0559	1820	0515	1848	0447	1914	0444	1928	0502	1917	0528	1842	0554	1755	0622	1713	0654	1647	0716	1652
26	0712	1721	0639	1754	0557	1821	0514	1849	0447	1915	0444	1928	0503	1916	0529	1840	0555	1753	0623	1711	0655	1647	0717	1652
27	0711	1722	0638	1755	0556	1822	0512	1850	0446	1916	0445	1928	0504	1915	0530	1839	0556	1752	0624	1710	0656	1646	0717	1653
28	0710	1723	0637	1756	0554	1823	0511	1851	0446	1916	0445	1928	0505	1915	0531	1837	0557	1750	0625	1709	0657	1646	0717	1654
29	0710	1724	0635	1757	0553	1824	0510	1852	0445	1917	0446	1928	0506	1914	0532	1836	0558	1749	0626	1708	0658	1646	0718	1654
30	0709	1725			0551	1825	0509	1853	0445	1918	0446	1928	0507	1913	0533	1834	0559	1747	0627	1707	0659	1646	0718	1655
31	0708	1726			0550	1826			0444	1919			0507	1912	0533	1833			0628	1706			0718	1656

Add one hour for daylight time, if and when in use.

CORTEZ, COLORADO

Astronomical Applications Dept.
U. S. Naval Observatory

Location: W108° 34', N37° 21'

Mountain Standard Time

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0728	1707	0718	1738	0645	1809	0559	1837	0519	1904	0455	1930	0458	1939	0519	1921	0545	1842	0610	1757	0640	1716	0710	1657
02	0729	1708	0717	1739	0643	1810	0558	1838	0518	1905	0455	1930	0458	1939	0520	1920	0546	1841	0611	1755	0641	1715	0711	1657
03	0729	1709	0716	1741	0642	1811	0556	1839	0516	1906	0454	1931	0459	1939	0521	1919	0547	1839	0612	1754	0642	1714	0712	1656
04	0729	1710	0715	1742	0640	1812	0555	1840	0515	1907	0454	1932	0459	1938	0522	1918	0548	1838	0613	1752	0643	1713	0713	1656
05	0729	1710	0714	1743	0639	1813	0553	1841	0514	1908	0454	1932	0500	1938	0523	1917	0549	1836	0614	1751	0644	1712	0714	1656
06	0729	1711	0713	1744	0638	1814	0552	1842	0513	1909	0454	1933	0500	1938	0523	1916	0549	1835	0615	1749	0645	1711	0715	1656
07	0729	1712	0712	1745	0636	1815	0550	1843	0512	1910	0454	1933	0501	1938	0524	1915	0550	1833	0615	1748	0646	1710	0716	1656
08	0729	1713	0711	1746	0635	1816	0549	1844	0511	1911	0453	1934	0501	1937	0525	1914	0551	1832	0616	1746	0647	1709	0716	1656
09	0729	1714	0710	1747	0633	1817	0547	1845	0510	1912	0453	1934	0502	1937	0526	1913	0552	1830	0617	1745	0648	1708	0717	1657
10	0729	1715	0709	1748	0632	1817	0546	1846	0509	1912	0453	1935	0503	1937	0527	1912	0553	1829	0618	1743	0649	1707	0718	1657
11	0728	1716	0708	1749	0630	1818	0544	1846	0508	1913	0453	1935	0503	1936	0528	1910	0553	1827	0619	1742	0650	1706	0719	1657
12	0728	1717	0707	1750	0629	1819	0543	1847	0508	1914	0453	1936	0504	1936	0528	1909	0554	1826	0620	1741	0651	1706	0720	1657
13	0728	1718	0706	1751	0627	1820	0542	1848	0507	1915	0453	1936	0505	1935	0529	1908	0555	1824	0621	1739	0652	1705	0720	1657
14	0728	1719	0705	1752	0626	1821	0540	1849	0506	1916	0453	1936	0505	1935	0530	1907	0556	1823	0622	1738	0653	1704	0721	1658
15	0728	1720	0704	1754	0624	1822	0539	1850	0505	1917	0453	1937	0506	1934	0531	1906	0557	1821	0623	1736	0654	1703	0722	1658
16	0727	1721	0703	1755	0623	1823	0538	1851	0504	1918	0453	1937	0507	1934	0532	1904	0558	1819	0624	1735	0655	1703	0722	1658
17	0727	1722	0701	1756	0621	1824	0536	1852	0503	1918	0453	1937	0507	1933	0533	1903	0558	1818	0625	1734	0656	1702	0723	1659
18	0726	1723	0700	1757	0620	1825	0535	1853	0503	1919	0454	1938	0508	1933	0534	1902	0559	1816	0626	1732	0657	1702	0723	1659
19	0726	1724	0659	1758	0618	1826	0534	1854	0502	1920	0454	1938	0509	1932	0534	1900	0600	1815	0627	1731	0658	1701	0724	1659
20	0726	1725	0658	1759	0617	1827	0532	1855	0501	1921	0454	1938	0510	1931	0535	1859	0601	1813	0628	1730	0659	1700	0725	1700
21	0725	1726	0657	1800	0615	1828	0531	1855	0501	1922	0454	1938	0510	1931	0536	1858	0602	1812	0629	1729	0700	1700	0725	1700
22	0725	1727	0655	1801	0614	1829	0530	1856	0500	1922	0454	1939	0511	1930	0537	1856	0603	1810	0630	1727	0701	1659	0726	1701
23	0724	1728	0654	1802	0612	1829	0528	1857	0459	1923	0455	1939	0512	1929	0538	1855	0603	1809	0630	1726	0702	1659	0726	1701
24	0723	1730	0653	1803	0611	1830	0527	1858	0459	1924	0455	1939	0513	1928	0539	1854	0604	1807	0631	1725	0703	1659	0726	1702
25	0723	1731	0651	1804	0609	1831	0526	1859	0458	1925	0455	1939	0514	1928	0539	1852	0605	1806	0632	1724	0704	1658	0727	1703
26	0722	1732	0650	1805	0608	1832	0525	1900	0458	1926	0456	1939	0514	1927	0540	1851	0606	1804	0633	1722	0705	1658	0727	1703
27	0722	1733	0649	1806	0606	1833	0523	1901	0457	1926	0456	1939	0515	1926	0541	1849	0607	1803	0634	1721	0706	1658	0727	1704
28	0721	1734	0647	1807	0605	1834	0522	1902	0457	1927	0456	1939	0516	1925	0542	1848	0608	1801	0635	1720	0707	1657	0728	1705
29	0720	1735	0646	1808	0603	1835	0521	1903	0456	1928	0457	1939	0517	1924	0543	1847	0608	1800	0636	1719	0708	1657	0728	1705
30	0719	1736			0602	1836	0520	1904	0456	1928	0457	1939	0518	1923	0544	1845	0609	1758	0638	1718	0709	1657	0728	1706
31	0719	1737			0600	1837			0455	1929			0518	1922	0544	1844			0639	1717			0728	1707

Add one hour for daylight time, if and when in use.

CRAIG, COLORADO

Astronomical Applications Dept.
U. S. Naval Observatory

Location: W107° 33', N40° 31'

Mountain Standard Time

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0734	1654	0720	1728	0643	1802	0553	1835	0509	1907	0442	1935	0444	1944	0508	1924	0538	1841	0607	1751	0641	1706	0715	1644
02	0734	1655	0719	1729	0642	1803	0551	1836	0507	1908	0441	1936	0444	1944	0509	1923	0539	1840	0608	1750	0642	1705	0716	1644
03	0734	1656	0718	1730	0640	1805	0550	1838	0506	1909	0441	1936	0445	1944	0510	1922	0540	1838	0609	1748	0643	1704	0717	1644
04	0734	1656	0717	1731	0638	1806	0548	1839	0505	1910	0441	1937	0445	1944	0511	1921	0541	1836	0610	1746	0644	1703	0718	1643
05	0734	1657	0716	1733	0637	1807	0547	1840	0504	1911	0440	1938	0446	1944	0512	1920	0542	1835	0611	1745	0646	1702	0719	1643
06	0734	1658	0715	1734	0635	1808	0545	1841	0502	1912	0440	1938	0447	1943	0513	1919	0543	1833	0612	1743	0647	1701	0720	1643
07	0734	1659	0714	1735	0634	1809	0543	1842	0501	1913	0440	1939	0447	1943	0514	1917	0544	1831	0613	1742	0648	1700	0721	1643
08	0734	1700	0713	1736	0632	1810	0542	1843	0500	1914	0440	1939	0448	1943	0515	1916	0545	1830	0614	1740	0649	1659	0721	1643
09	0733	1701	0712	1738	0631	1811	0540	1844	0459	1915	0439	1940	0449	1942	0516	1915	0546	1828	0615	1738	0650	1658	0722	1643
10	0733	1702	0710	1739	0629	1812	0539	1845	0458	1916	0439	1941	0449	1942	0517	1914	0547	1826	0616	1737	0651	1657	0723	1643
11	0733	1703	0709	1740	0627	1813	0537	1846	0457	1917	0439	1941	0450	1941	0518	1912	0548	1825	0618	1735	0653	1656	0724	1644
12	0733	1704	0708	1741	0626	1814	0535	1847	0456	1918	0439	1941	0451	1941	0519	1911	0549	1823	0619	1734	0654	1655	0725	1644
13	0732	1705	0707	1742	0624	1815	0534	1848	0455	1919	0439	1942	0451	1940	0519	1910	0550	1821	0620	1732	0655	1654	0725	1644
14	0732	1707	0706	1744	0622	1817	0532	1849	0454	1920	0439	1942	0452	1940	0520	1908	0551	1820	0621	1731	0656	1653	0726	1644
15	0732	1708	0704	1745	0621	1818	0531	1850	0453	1921	0439	1943	0453	1939	0521	1907	0551	1818	0622	1729	0657	1652	0727	1644
16	0731	1709	0703	1746	0619	1819	0529	1851	0452	1922	0439	1943	0454	1939	0522	1906	0552	1816	0623	1728	0658	1651	0728	1645
17	0731	1710	0702	1747	0618	1820	0528	1852	0451	1922	0439	1943	0455	1938	0523	1904	0553	1815	0624	1726	0700	1651	0728	1645
18	0730	1711	0700	1748	0616	1821	0526	1853	0451	1923	0439	1944	0455	1937	0524	1903	0554	1813	0625	1725	0701	1650	0729	1646
19	0730	1712	0659	1750	0614	1822	0525	1854	0450	1924	0440	1944	0456	1936	0525	1901	0555	1811	0626	1723	0702	1649	0729	1646
20	0729	1713	0658	1751	0613	1823	0523	1855	0449	1925	0440	1944	0457	1936	0526	1900	0556	1810	0627	1722	0703	1649	0730	1646
21	0729	1715	0656	1752	0611	1824	0522	1856	0448	1926	0440	1944	0458	1935	0527	1858	0557	1808	0628	1720	0704	1648	0730	1647
22	0728	1716	0655	1753	0609	1825	0521	1857	0447	1927	0440	1944	0459	1934	0528	1857	0558	1806	0629	1719	0705	1647	0731	1647
23	0727	1717	0653	1754	0608	1826	0519	1858	0447	1928	0441	1945	0500	1933	0529	1855	0559	1805	0631	1718	0706	1647	0731	1648
24	0727	1718	0652	1755	0606	1827	0518	1859	0446	1929	0441	1945	0501	1932	0530	1854	0600	1803	0632	1716	0707	1646	0732	1649
25	0726	1719	0651	1757	0604	1828	0516	1900	0445	1930	0441	1945	0501	1931	0531	1852	0601	1801	0633	1715	0709	1646	0732	1649
26	0725	1720	0649	1758	0603	1829	0515	1901	0445	1930	0442	1945	0502	1931	0532	1851	0602	1800	0634	1714	0710	1646	0732	1650
27	0724	1722	0648	1759	0601	1830	0514	1902	0444	1931	0442	1945	0503	1930	0533	1849	0603	1758	0635	1712	0711	1645	0733	1651
28	0724	1723	0646	1800	0559	1831	0512	1903	0444	1932	0442	1945	0504	1929	0534	1848	0604	1756	0636	1711	0712	1645	0733	1651
29	0723	1724	0645	1801	0558	1832	0511	1904	0443	1933	0443	1945	0505	1928	0535	1846	0605	1755	0637	1710	0713	1644	0733	1652
30	0722	1725			0556	1833	0510	1906	0443	1934	0443	1945	0506	1927	0536	1844	0606	1753	0639	1709	0714	1644	0733	1653
31	0721	1727			0555	1834			0442	1934			0507	1926	0537	1843			0640	1707			0734	1654

Add one hour for daylight time, if and when in use.

DENVER, COLORADO

Astronomical Applications Dept.
U. S. Naval Observatory

Location: W104° 59', N39° 43'

Mountain Standard Time

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0721	1646	0708	1719	0632	1753	0543	1825	0500	1855	0434	1922	0436	1932	0500	1912	0529	1830	0557	1741	0629	1657	0702	1636
02	0721	1647	0707	1720	0631	1754	0542	1826	0459	1856	0433	1923	0437	1931	0500	1911	0529	1829	0558	1740	0630	1656	0703	1636
03	0721	1648	0706	1722	0629	1755	0540	1827	0457	1857	0433	1924	0437	1931	0501	1910	0530	1827	0559	1738	0631	1655	0704	1636
04	0721	1649	0705	1723	0628	1756	0538	1828	0456	1858	0433	1924	0438	1931	0502	1909	0531	1825	0600	1737	0633	1654	0705	1635
05	0721	1649	0704	1724	0626	1757	0537	1829	0455	1859	0433	1925	0438	1931	0503	1908	0532	1824	0601	1735	0634	1653	0706	1635
06	0721	1650	0703	1725	0625	1758	0535	1830	0454	1900	0432	1925	0439	1931	0504	1907	0533	1822	0602	1733	0635	1652	0707	1635
07	0721	1651	0702	1726	0623	1759	0534	1831	0453	1901	0432	1926	0439	1930	0505	1905	0534	1821	0603	1732	0636	1651	0708	1635
08	0721	1652	0701	1728	0621	1800	0532	1832	0452	1902	0432	1927	0440	1930	0506	1904	0535	1819	0604	1730	0637	1650	0709	1635
09	0721	1653	0700	1729	0620	1801	0531	1833	0451	1903	0432	1927	0441	1929	0507	1903	0536	1817	0605	1729	0638	1649	0710	1635
10	0721	1654	0659	1730	0618	1802	0529	1834	0450	1903	0432	1928	0441	1929	0508	1902	0537	1816	0606	1727	0639	1648	0710	1636
11	0720	1655	0658	1731	0617	1803	0528	1835	0449	1904	0432	1928	0442	1929	0509	1901	0538	1814	0607	1726	0641	1647	0711	1636
12	0720	1656	0657	1732	0615	1804	0526	1836	0448	1905	0431	1929	0443	1928	0510	1859	0539	1812	0608	1724	0642	1646	0712	1636
13	0720	1657	0655	1733	0614	1805	0525	1837	0447	1906	0431	1929	0444	1928	0511	1858	0540	1811	0609	1723	0643	1645	0713	1636
14	0720	1658	0654	1735	0612	1806	0523	1838	0446	1907	0431	1929	0444	1927	0512	1857	0541	1809	0610	1721	0644	1645	0713	1636
15	0719	1700	0653	1736	0610	1807	0522	1839	0445	1908	0431	1930	0445	1927	0513	1855	0542	1808	0611	1720	0645	1644	0714	1637
16	0719	1701	0652	1737	0609	1808	0520	1840	0444	1909	0432	1930	0446	1926	0514	1854	0542	1806	0612	1718	0646	1643	0715	1637
17	0718	1702	0650	1738	0607	1809	0519	1841	0443	1910	0432	1930	0447	1925	0514	1852	0543	1804	0613	1717	0647	1642	0715	1637
18	0718	1703	0649	1739	0606	1811	0517	1842	0442	1911	0432	1931	0447	1925	0515	1851	0544	1803	0614	1715	0648	1642	0716	1638
19	0718	1704	0648	1740	0604	1812	0516	1843	0442	1912	0432	1931	0448	1924	0516	1850	0545	1801	0615	1714	0650	1641	0717	1638
20	0717	1705	0646	1742	0602	1813	0514	1844	0441	1913	0432	1931	0449	1923	0517	1848	0546	1759	0616	1713	0651	1640	0717	1639
21	0716	1706	0645	1743	0601	1814	0513	1845	0440	1914	0432	1931	0450	1922	0518	1847	0547	1758	0617	1711	0652	1640	0718	1639
22	0716	1707	0644	1744	0559	1815	0512	1846	0439	1914	0433	1932	0451	1922	0519	1845	0548	1756	0618	1710	0653	1639	0718	1640
23	0715	1709	0642	1745	0558	1816	0510	1847	0439	1915	0433	1932	0452	1921	0520	1844	0549	1754	0619	1709	0654	1639	0719	1640
24	0715	1710	0641	1746	0556	1817	0509	1848	0438	1916	0433	1932	0452	1920	0521	1842	0550	1753	0620	1707	0655	1638	0719	1641
25	0714	1711	0639	1747	0554	1818	0508	1849	0437	1917	0433	1932	0453	1919	0522	1841	0551	1751	0621	1706	0656	1638	0719	1641
26	0713	1712	0638	1748	0553	1819	0506	1850	0437	1918	0434	1932	0454	1918	0523	1839	0552	1749	0622	1705	0657	1637	0720	1642
27	0712	1713	0637	1749	0551	1820	0505	1851	0436	1919	0434	1932	0455	1917	0524	1838	0553	1748	0624	1703	0658	1637	0720	1643
28	0712	1714	0635	1750	0550	1821	0504	1852	0436	1919	0435	1932	0456	1916	0525	1836	0554	1746	0625	1702	0659	1637	0720	1643
29	0711	1716	0634	1752	0548	1822	0502	1853	0435	1920	0435	1932	0457	1915	0526	1835	0555	1745	0626	1701	0700	1636	0721	1644
30	0710	1717			0546	1823	0501	1854	0435	1921	0436	1932	0458	1914	0527	1833	0556	1743	0627	1700	0701	1636	0721	1645
31	0709	1718			0545	1824			0434	1922			0459	1913	0528	1832			0628	1658			0721	1646

Add one hour for daylight time, if and when in use.

DURANGO, COLORADO

Astronomical Applications Dept.
U. S. Naval Observatory

Location: W107° 52', N37° 17'

Mountain Standard Time

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0726	1704	0715	1736	0642	1806	0556	1835	0516	1902	0452	1927	0455	1936	0517	1918	0542	1839	0607	1754	0637	1713	0707	1654
02	0726	1705	0714	1737	0640	1807	0555	1836	0515	1902	0452	1927	0455	1936	0517	1917	0543	1838	0608	1752	0638	1712	0708	1654
03	0726	1706	0713	1738	0639	1808	0553	1836	0514	1903	0452	1928	0456	1936	0518	1916	0544	1836	0609	1751	0639	1711	0709	1654
04	0726	1707	0712	1739	0638	1809	0552	1837	0513	1904	0452	1929	0457	1935	0519	1915	0545	1835	0610	1749	0640	1710	0710	1654
05	0726	1708	0711	1740	0636	1810	0550	1838	0512	1905	0451	1929	0457	1935	0520	1914	0546	1833	0611	1748	0641	1709	0711	1654
06	0726	1709	0710	1741	0635	1811	0549	1839	0511	1906	0451	1930	0458	1935	0521	1913	0547	1832	0612	1746	0642	1708	0712	1654
07	0726	1710	0709	1742	0633	1812	0547	1840	0510	1907	0451	1930	0458	1935	0522	1912	0547	1830	0613	1745	0643	1707	0713	1654
08	0726	1710	0708	1743	0632	1813	0546	1841	0509	1908	0451	1931	0459	1934	0522	1911	0548	1829	0614	1744	0644	1706	0713	1654
09	0726	1711	0707	1744	0630	1814	0545	1842	0508	1909	0451	1931	0459	1934	0523	1910	0549	1827	0614	1742	0645	1705	0714	1654
10	0726	1712	0706	1745	0629	1815	0543	1843	0507	1910	0451	1932	0500	1934	0524	1909	0550	1826	0615	1741	0646	1705	0715	1654
11	0726	1713	0705	1747	0628	1816	0542	1844	0506	1910	0451	1932	0501	1933	0525	1908	0551	1824	0616	1739	0647	1704	0716	1654
12	0725	1714	0704	1748	0626	1817	0540	1844	0505	1911	0450	1933	0501	1933	0526	1906	0552	1823	0617	1738	0648	1703	0717	1654
13	0725	1715	0703	1749	0625	1817	0539	1845	0504	1912	0450	1933	0502	1932	0527	1905	0552	1821	0618	1736	0649	1702	0717	1655
14	0725	1716	0702	1750	0623	1818	0538	1846	0503	1913	0451	1933	0503	1932	0527	1904	0553	1820	0619	1735	0650	1701	0718	1655
15	0725	1717	0701	1751	0622	1819	0536	1847	0502	1914	0451	1934	0503	1931	0528	1903	0554	1818	0620	1734	0651	1701	0719	1655
16	0724	1718	0700	1752	0620	1820	0535	1848	0502	1915	0451	1934	0504	1931	0529	1901	0555	1817	0621	1732	0652	1700	0719	1656
17	0724	1719	0659	1753	0619	1821	0533	1849	0501	1915	0451	1934	0505	1930	0530	1900	0556	1815	0622	1731	0653	1659	0720	1656
18	0724	1720	0657	1754	0617	1822	0532	1850	0500	1916	0451	1935	0505	1930	0531	1859	0556	1814	0623	1730	0654	1659	0720	1656
19	0723	1721	0656	1755	0616	1823	0531	1851	0459	1917	0451	1935	0506	1929	0532	1858	0557	1812	0624	1728	0655	1658	0721	1657
20	0723	1723	0655	1756	0614	1824	0529	1852	0459	1918	0451	1935	0507	1928	0533	1856	0558	1811	0625	1727	0656	1658	0722	1657
21	0722	1724	0654	1757	0613	1825	0528	1853	0458	1919	0451	1935	0508	1928	0533	1855	0559	1809	0626	1726	0658	1657	0722	1658
22	0722	1725	0652	1758	0611	1826	0527	1853	0457	1920	0452	1936	0508	1927	0534	1854	0600	1807	0627	1725	0659	1657	0723	1658
23	0721	1726	0651	1759	0610	1827	0526	1854	0457	1920	0452	1936	0509	1926	0535	1852	0601	1806	0628	1723	0700	1656	0723	1659
24	0721	1727	0650	1800	0608	1827	0524	1855	0456	1921	0452	1936	0510	1925	0536	1851	0601	1804	0629	1722	0701	1656	0723	1659
25	0720	1728	0649	1801	0607	1828	0523	1856	0456	1922	0453	1936	0511	1925	0537	1849	0602	1803	0630	1721	0702	1656	0724	1700
26	0719	1729	0647	1802	0605	1829	0522	1857	0455	1923	0453	1936	0512	1924	0538	1848	0603	1801	0631	1720	0703	1655	0724	1701
27	0719	1730	0646	1803	0604	1830	0521	1858	0455	1923	0453	1936	0512	1923	0538	1847	0604	1800	0632	1719	0704	1655	0725	1701
28	0718	1731	0645	1804	0602	1831	0519	1859	0454	1924	0454	1936	0513	1922	0539	1845	0605	1758	0633	1717	0704	1655	0725	1702
29	0717	1732	0643	1805	0601	1832	0518	1900	0454	1925	0454	1936	0514	1921	0540	1844	0606	1757	0634	1716	0705	1654	0725	1703
30	0716	1733			0559	1833	0517	1901	0453	1925	0455	1936	0515	1920	0541	1842	0607	1755	0635	1715	0706	1654	0725	1704
31	0716	1735			0558	1834			0453	1926			0516	1919	0542	1841			0636	1714			0725	1704

Add one hour for daylight time, if and when in use.

GRAND JUNCTION, COLORADO

Astronomical Applications Dept.
U. S. Naval Observatory

Location: W108° 33', N39° 04'

Mountain Standard Time

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0733	1702	0721	1735	0646	1807	0558	1838	0515	1908	0450	1935	0452	1944	0515	1925	0543	1844	0611	1756	0642	1713	0715	1652
02	0733	1703	0720	1736	0644	1808	0556	1839	0514	1909	0450	1935	0453	1944	0516	1924	0544	1842	0612	1754	0643	1712	0716	1652
03	0734	1704	0719	1737	0643	1810	0555	1840	0513	1910	0449	1936	0453	1944	0517	1923	0545	1841	0613	1753	0645	1711	0717	1652
04	0734	1705	0718	1738	0641	1811	0553	1841	0512	1911	0449	1937	0454	1943	0518	1922	0546	1839	0614	1751	0646	1709	0718	1652
05	0734	1706	0717	1740	0640	1812	0552	1842	0511	1911	0449	1937	0455	1943	0519	1921	0547	1838	0615	1750	0647	1708	0719	1652
06	0734	1706	0716	1741	0638	1813	0550	1843	0510	1912	0449	1938	0455	1943	0520	1920	0548	1836	0615	1748	0648	1707	0719	1651
07	0734	1707	0715	1742	0637	1814	0549	1844	0509	1913	0448	1938	0456	1943	0521	1918	0549	1834	0616	1747	0649	1706	0720	1651
08	0733	1708	0714	1743	0635	1815	0547	1845	0508	1914	0448	1939	0456	1942	0522	1917	0550	1833	0617	1745	0650	1705	0721	1652
09	0733	1709	0713	1744	0634	1816	0546	1846	0506	1915	0448	1939	0457	1942	0523	1916	0551	1831	0618	1744	0651	1705	0722	1652
10	0733	1710	0712	1745	0632	1817	0544	1847	0505	1916	0448	1940	0458	1941	0523	1915	0552	1830	0619	1742	0652	1704	0723	1652
11	0733	1711	0711	1746	0631	1818	0543	1848	0504	1917	0448	1940	0458	1941	0524	1914	0552	1828	0620	1741	0653	1703	0724	1652
12	0733	1712	0710	1748	0629	1819	0541	1849	0504	1918	0448	1941	0459	1941	0525	1912	0553	1826	0621	1739	0655	1702	0724	1652
13	0732	1713	0709	1749	0628	1820	0540	1850	0503	1919	0448	1941	0500	1940	0526	1911	0554	1825	0622	1738	0656	1701	0725	1652
14	0732	1714	0707	1750	0626	1821	0538	1851	0502	1920	0448	1942	0500	1940	0527	1910	0555	1823	0623	1736	0657	1700	0726	1653
15	0732	1716	0706	1751	0625	1822	0537	1852	0501	1921	0448	1942	0501	1939	0528	1908	0556	1822	0624	1735	0658	1700	0726	1653
16	0731	1717	0705	1752	0623	1823	0535	1853	0500	1922	0448	1942	0502	1938	0529	1907	0557	1820	0625	1733	0659	1659	0727	1653
17	0731	1718	0704	1753	0621	1824	0534	1854	0459	1923	0448	1943	0503	1938	0530	1906	0558	1818	0626	1732	0700	1658	0728	1654
18	0731	1719	0702	1754	0620	1825	0532	1855	0458	1924	0448	1943	0503	1937	0531	1904	0559	1817	0627	1730	0701	1657	0728	1654
19	0730	1720	0701	1756	0618	1826	0531	1856	0458	1924	0448	1943	0504	1936	0532	1903	0600	1815	0628	1729	0702	1657	0729	1654
20	0730	1721	0700	1757	0617	1827	0530	1857	0457	1925	0448	1943	0505	1936	0533	1902	0601	1813	0629	1728	0703	1656	0729	1655
21	0729	1722	0658	1758	0615	1828	0528	1858	0456	1926	0449	1944	0506	1935	0534	1900	0601	1812	0631	1726	0704	1656	0730	1655
22	0729	1723	0657	1759	0614	1829	0527	1859	0455	1927	0449	1944	0507	1934	0534	1859	0602	1810	0632	1725	0706	1655	0730	1656
23	0728	1724	0656	1800	0612	1830	0526	1900	0455	1928	0449	1944	0507	1933	0535	1857	0603	1809	0633	1724	0707	1655	0731	1656
24	0727	1726	0654	1801	0610	1831	0524	1901	0454	1929	0450	1944	0508	1933	0536	1856	0604	1807	0634	1722	0708	1654	0731	1657
25	0727	1727	0653	1802	0609	1832	0523	1902	0453	1929	0450	1944	0509	1932	0537	1854	0605	1805	0635	1721	0709	1654	0732	1658
26	0726	1728	0652	1803	0607	1833	0522	1903	0453	1930	0450	1944	0510	1931	0538	1853	0606	1804	0636	1720	0710	1653	0732	1658
27	0725	1729	0650	1804	0606	1834	0520	1904	0452	1931	0451	1944	0511	1930	0539	1851	0607	1802	0637	1719	0711	1653	0732	1659
28	0724	1730	0649	1805	0604	1835	0519	1905	0452	1932	0451	1944	0512	1929	0540	1850	0608	1801	0638	1717	0712	1653	0733	1700
29	0724	1731	0647	1806	0603	1836	0518	1906	0451	1932	0451	1944	0513	1928	0541	1848	0609	1759	0639	1716	0713	1652	0733	1700
30	0723	1732			0601	1837	0517	1907	0451	1933	0452	1944	0514	1927	0542	1847	0610	1757	0640	1715	0714	1652	0733	1701
31	0722	1734			0559	1838			0450	1934			0514	1926	0543	1845			0641	1714			0733	1702

Add one hour for daylight time, if and when in use.

MONTROSE, COLORADO

Astronomical Applications Dept.
U. S. Naval Observatory

Location: W107° 52', N38° 29'

Mountain Standard Time

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0729	1701	0717	1733	0643	1805	0556	1835	0514	1904	0449	1930	0451	1939	0514	1921	0541	1840	0608	1753	0639	1711	0710	1651
02	0729	1702	0716	1734	0641	1806	0554	1836	0513	1905	0449	1931	0452	1939	0515	1920	0542	1839	0609	1752	0640	1710	0711	1651
03	0729	1703	0715	1736	0640	1807	0552	1837	0511	1906	0448	1931	0452	1939	0516	1919	0543	1837	0610	1750	0641	1709	0712	1651
04	0729	1704	0714	1737	0638	1808	0551	1838	0510	1907	0448	1932	0453	1939	0517	1918	0544	1836	0611	1749	0642	1708	0713	1651
05	0729	1705	0713	1738	0637	1809	0549	1839	0509	1908	0448	1933	0454	1939	0517	1917	0545	1834	0611	1747	0643	1707	0714	1650
06	0729	1705	0713	1739	0635	1810	0548	1840	0508	1908	0448	1933	0454	1938	0518	1916	0546	1833	0612	1746	0644	1706	0715	1650
07	0729	1706	0711	1740	0634	1811	0546	1841	0507	1909	0447	1934	0455	1938	0519	1914	0547	1831	0613	1744	0645	1705	0716	1650
08	0729	1707	0710	1741	0632	1812	0545	1842	0506	1910	0447	1934	0455	1938	0520	1913	0547	1830	0614	1743	0646	1704	0717	1651
09	0729	1708	0709	1742	0631	1813	0543	1843	0505	1911	0447	1935	0456	1937	0521	1912	0548	1828	0615	1741	0647	1703	0718	1651
10	0729	1709	0708	1744	0629	1814	0542	1844	0504	1912	0447	1935	0457	1937	0522	1911	0549	1827	0616	1740	0648	1702	0718	1651
11	0729	1710	0707	1745	0628	1815	0541	1845	0503	1913	0447	1936	0457	1937	0523	1910	0550	1825	0617	1738	0650	1701	0719	1651
12	0728	1711	0706	1746	0626	1816	0539	1846	0502	1914	0447	1936	0458	1936	0524	1908	0551	1823	0618	1737	0651	1700	0720	1651
13	0728	1712	0705	1747	0625	1817	0538	1847	0501	1915	0447	1937	0459	1936	0525	1907	0552	1822	0619	1735	0652	1700	0721	1651
14	0728	1713	0704	1748	0623	1818	0536	1848	0500	1916	0447	1937	0459	1935	0525	1906	0553	1820	0620	1734	0653	1659	0721	1652
15	0728	1714	0703	1749	0622	1819	0535	1849	0500	1917	0447	1937	0500	1935	0526	1905	0554	1819	0621	1733	0654	1658	0722	1652
16	0727	1715	0701	1750	0620	1820	0533	1850	0459	1918	0447	1938	0501	1934	0527	1903	0554	1817	0622	1731	0655	1657	0723	1652
17	0727	1716	0700	1751	0619	1821	0532	1851	0458	1918	0447	1938	0502	1933	0528	1902	0555	1815	0623	1730	0656	1657	0723	1653
18	0726	1718	0659	1752	0617	1822	0531	1851	0457	1919	0447	1938	0502	1933	0529	1901	0556	1814	0624	1728	0657	1656	0724	1653
19	0726	1719	0658	1754	0616	1823	0529	1852	0456	1920	0447	1939	0503	1932	0530	1859	0557	1812	0625	1727	0658	1656	0724	1653
20	0725	1720	0656	1755	0614	1824	0528	1853	0456	1921	0448	1939	0504	1931	0531	1858	0558	1811	0626	1726	0659	1655	0725	1654
21	0725	1721	0655	1756	0613	1825	0526	1854	0455	1922	0448	1939	0505	1931	0532	1857	0559	1809	0627	1724	0700	1654	0725	1654
22	0724	1722	0654	1757	0611	1826	0525	1855	0454	1923	0448	1939	0505	1930	0533	1855	0600	1808	0628	1723	0701	1654	0726	1655
23	0724	1723	0652	1758	0609	1827	0524	1856	0454	1923	0448	1939	0506	1929	0533	1854	0601	1806	0629	1722	0702	1653	0726	1655
24	0723	1724	0651	1759	0608	1828	0522	1857	0453	1924	0449	1939	0507	1928	0534	1852	0601	1804	0630	1720	0703	1653	0727	1656
25	0723	1725	0650	1800	0606	1829	0521	1858	0452	1925	0449	1940	0508	1928	0535	1851	0602	1803	0631	1719	0704	1653	0727	1657
26	0722	1726	0648	1801	0605	1830	0520	1859	0452	1926	0449	1940	0509	1927	0536	1849	0603	1801	0632	1718	0706	1652	0728	1657
27	0721	1728	0647	1802	0603	1831	0519	1900	0451	1927	0450	1940	0510	1926	0537	1848	0604	1800	0633	1717	0707	1652	0728	1658
28	0720	1729	0646	1803	0602	1832	0517	1901	0451	1927	0450	1940	0510	1925	0538	1846	0605	1758	0634	1716	0708	1652	0728	1659
29	0720	1730	0644	1804	0600	1833	0516	1902	0450	1928	0451	1940	0511	1924	0539	1845	0606	1756	0635	1714	0709	1651	0728	1659
30	0719	1731			0559	1834	0515	1903	0450	1929	0451	1939	0512	1923	0540	1844	0607	1755	0636	1713	0710	1651	0729	1700
31	0718	1732			0557	1834			0449	1929			0513	1922	0540	1842			0638	1712			0729	1701

Add one hour for daylight time, if and when in use.

PUEBLO, COLORADO

Astronomical Applications Dept.
U. S. Naval Observatory

Location: W104° 38', N38° 17'

Mountain Standard Time

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0715	1649	0704	1721	0630	1752	0543	1822	0501	1851	0437	1917	0439	1926	0501	1908	0529	1827	0555	1741	0625	1658	0657	1638
02	0716	1650	0703	1722	0628	1753	0541	1823	0500	1851	0436	1917	0440	1926	0502	1907	0529	1826	0556	1739	0626	1657	0658	1638
03	0716	1650	0702	1723	0627	1754	0540	1824	0459	1852	0436	1918	0440	1926	0503	1906	0530	1824	0557	1737	0628	1656	0659	1638
04	0716	1651	0701	1724	0625	1755	0538	1825	0458	1853	0436	1919	0441	1925	0504	1905	0531	1823	0558	1736	0629	1655	0700	1638
05	0716	1652	0700	1725	0624	1756	0537	1826	0457	1854	0435	1919	0441	1925	0505	1903	0532	1821	0558	1734	0630	1654	0701	1638
06	0716	1653	0659	1726	0622	1757	0535	1827	0456	1855	0435	1920	0442	1925	0506	1902	0533	1820	0559	1733	0631	1653	0702	1638
07	0716	1654	0658	1728	0621	1758	0534	1828	0455	1856	0435	1920	0442	1925	0507	1901	0534	1818	0600	1731	0632	1652	0702	1638
08	0716	1655	0657	1729	0619	1759	0532	1829	0454	1857	0435	1921	0443	1924	0508	1900	0535	1817	0601	1730	0633	1651	0703	1638
09	0716	1656	0656	1730	0618	1800	0531	1830	0453	1858	0435	1921	0444	1924	0508	1859	0536	1815	0602	1728	0634	1651	0704	1638
10	0715	1657	0655	1731	0616	1801	0529	1831	0452	1859	0435	1922	0444	1924	0509	1858	0536	1814	0603	1727	0635	1650	0705	1638
11	0715	1658	0654	1732	0615	1802	0528	1832	0451	1900	0435	1922	0445	1923	0510	1856	0537	1812	0604	1726	0636	1649	0706	1638
12	0715	1659	0653	1733	0613	1803	0526	1833	0450	1901	0435	1923	0446	1923	0511	1855	0538	1810	0605	1724	0637	1648	0706	1639
13	0715	1700	0652	1734	0612	1804	0525	1834	0449	1902	0435	1923	0446	1922	0512	1854	0539	1809	0606	1723	0638	1647	0707	1639
14	0714	1701	0651	1735	0610	1805	0523	1835	0448	1902	0435	1924	0447	1922	0513	1853	0540	1807	0607	1721	0639	1646	0708	1639
15	0714	1702	0649	1736	0609	1806	0522	1835	0447	1903	0435	1924	0448	1921	0514	1851	0541	1806	0608	1720	0641	1646	0709	1639
16	0714	1703	0648	1738	0607	1807	0521	1836	0446	1904	0435	1924	0448	1921	0515	1850	0542	1804	0609	1718	0642	1645	0709	1640
17	0713	1704	0647	1739	0606	1808	0519	1837	0445	1905	0435	1925	0449	1920	0515	1849	0542	1802	0610	1717	0643	1644	0710	1640
18	0713	1705	0646	1740	0604	1809	0518	1838	0445	1906	0435	1925	0450	1919	0516	1847	0543	1801	0611	1716	0644	1644	0710	1641
19	0713	1706	0645	1741	0603	1810	0516	1839	0444	1907	0435	1925	0451	1919	0517	1846	0544	1759	0612	1714	0645	1643	0711	1641
20	0712	1707	0643	1742	0601	1811	0515	1840	0443	1908	0435	1925	0451	1918	0518	1845	0545	1758	0613	1713	0646	1643	0711	1641
21	0712	1708	0642	1743	0600	1812	0514	1841	0442	1908	0435	1925	0452	1917	0519	1843	0546	1756	0614	1712	0647	1642	0712	1642
22	0711	1709	0641	1744	0558	1813	0512	1842	0442	1909	0436	1926	0453	1917	0520	1842	0547	1755	0615	1710	0648	1641	0712	1643
23	0710	1711	0639	1745	0557	1814	0511	1843	0441	1910	0436	1926	0454	1916	0521	1841	0548	1753	0616	1709	0649	1641	0713	1643
24	0710	1712	0638	1746	0555	1815	0510	1844	0441	1911	0436	1926	0455	1915	0522	1839	0549	1751	0617	1708	0650	1641	0713	1644
25	0709	1713	0637	1747	0553	1816	0509	1845	0440	1912	0437	1926	0456	1914	0522	1838	0549	1750	0618	1707	0651	1640	0714	1644
26	0709	1714	0635	1748	0552	1817	0507	1846	0439	1912	0437	1926	0456	1913	0523	1836	0550	1748	0619	1705	0652	1640	0714	1645
27	0708	1715	0634	1749	0550	1818	0506	1847	0439	1913	0437	1926	0457	1912	0524	1835	0551	1747	0620	1704	0653	1639	0714	1646
28	0707	1716	0632	1750	0549	1819	0505	1848	0438	1914	0438	1926	0458	1912	0525	1833	0552	1745	0621	1703	0654	1639	0715	1646
29	0706	1717	0631	1751	0547	1820	0504	1849	0438	1915	0438	1926	0459	1911	0526	1832	0553	1744	0622	1702	0655	1639	0715	1647
30	0706	1718			0546	1820	0502	1850	0437	1915	0439	1926	0500	1910	0527	1830	0554	1742	0623	1701	0656	1639	0715	1648
31	0705	1720			0544	1821			0437	1916			0501	1909	0528	1829			0624	1700			0715	1649

Add one hour for daylight time, if and when in use.

RIFLE, COLORADO

Astronomical Applications Dept.
U. S. Naval Observatory

Location: W107° 47', N39° 32'

Mountain Standard Time

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0732	1658	0719	1731	0643	1804	0555	1836	0511	1905	0446	1933	0448	1942	0511	1923	0540	1841	0608	1753	0640	1709	0713	1648
02	0732	1659	0718	1732	0642	1805	0553	1837	0510	1906	0445	1934	0448	1942	0512	1922	0541	1840	0609	1751	0641	1708	0714	1647
03	0732	1659	0717	1733	0640	1806	0551	1838	0509	1907	0445	1934	0449	1942	0513	1921	0542	1838	0610	1749	0642	1707	0715	1647
04	0732	1700	0716	1734	0639	1807	0550	1839	0508	1908	0445	1935	0449	1942	0514	1920	0543	1836	0611	1748	0643	1706	0716	1647
05	0732	1701	0715	1736	0637	1808	0548	1840	0507	1909	0444	1935	0450	1941	0515	1919	0544	1835	0612	1746	0645	1704	0717	1647
06	0732	1702	0714	1737	0636	1809	0547	1841	0506	1910	0444	1936	0451	1941	0516	1917	0545	1833	0613	1745	0646	1703	0718	1647
07	0732	1703	0713	1738	0634	1810	0545	1842	0504	1911	0444	1937	0451	1941	0517	1916	0545	1832	0614	1743	0647	1702	0719	1647
08	0732	1704	0712	1739	0633	1811	0544	1843	0503	1912	0444	1937	0452	1940	0518	1915	0546	1830	0615	1742	0648	1701	0719	1647
09	0732	1705	0711	1740	0631	1812	0542	1844	0502	1913	0444	1938	0453	1940	0519	1914	0547	1828	0616	1740	0649	1701	0720	1647
10	0731	1706	0710	1741	0629	1814	0541	1845	0501	1914	0443	1938	0453	1940	0519	1913	0548	1827	0617	1739	0650	1700	0721	1647
11	0731	1707	0709	1743	0628	1815	0539	1846	0500	1915	0443	1939	0454	1939	0520	1911	0549	1825	0618	1737	0651	1659	0722	1647
12	0731	1708	0707	1744	0626	1816	0538	1847	0459	1916	0443	1939	0455	1939	0521	1910	0550	1824	0619	1736	0652	1658	0723	1648
13	0731	1709	0706	1745	0625	1817	0536	1848	0458	1917	0443	1940	0455	1938	0522	1909	0551	1822	0620	1734	0654	1657	0723	1648
14	0730	1710	0705	1746	0623	1818	0535	1849	0457	1918	0443	1940	0456	1938	0523	1907	0552	1820	0621	1733	0655	1656	0724	1648
15	0730	1711	0704	1747	0622	1819	0533	1850	0457	1919	0443	1940	0457	1937	0524	1906	0553	1819	0622	1731	0656	1655	0725	1648
16	0730	1712	0703	1748	0620	1820	0532	1851	0456	1920	0443	1941	0458	1937	0525	1905	0554	1817	0623	1730	0657	1655	0725	1649
17	0729	1713	0701	1750	0618	1821	0530	1852	0455	1921	0443	1941	0458	1936	0526	1903	0555	1815	0624	1728	0658	1654	0726	1649
18	0729	1715	0700	1751	0617	1822	0529	1853	0454	1922	0444	1941	0459	1935	0527	1902	0556	1814	0625	1727	0659	1653	0727	1649
19	0728	1716	0659	1752	0615	1823	0527	1854	0453	1923	0444	1942	0500	1935	0528	1901	0556	1812	0626	1725	0700	1653	0727	1650
20	0728	1717	0657	1753	0614	1824	0526	1855	0452	1923	0444	1942	0501	1934	0529	1859	0557	1810	0627	1724	0701	1652	0728	1650
21	0727	1718	0656	1754	0612	1825	0524	1856	0452	1924	0444	1942	0502	1933	0530	1858	0558	1809	0628	1723	0703	1651	0728	1651
22	0727	1719	0655	1755	0610	1826	0523	1857	0451	1925	0444	1942	0502	1932	0531	1856	0559	1807	0629	1721	0704	1651	0729	1651
23	0726	1720	0653	1756	0609	1827	0522	1858	0450	1926	0445	1942	0503	1932	0532	1855	0600	1806	0630	1720	0705	1650	0729	1652
24	0725	1721	0652	1757	0607	1828	0520	1859	0450	1927	0445	1942	0504	1931	0533	1853	0601	1804	0631	1719	0706	1650	0730	1653
25	0725	1723	0650	1759	0606	1829	0519	1900	0449	1928	0445	1942	0505	1930	0533	1852	0602	1802	0632	1717	0707	1650	0730	1653
26	0724	1724	0649	1800	0604	1830	0518	1901	0448	1928	0446	1943	0506	1929	0534	1850	0603	1801	0633	1716	0708	1649	0730	1654
27	0723	1725	0648	1801	0602	1831	0516	1902	0448	1929	0446	1943	0507	1928	0535	1849	0604	1759	0635	1715	0709	1649	0731	1655
28	0722	1726	0646	1802	0601	1832	0515	1903	0447	1930	0446	1942	0508	1927	0536	1847	0605	1757	0636	1714	0710	1648	0731	1655
29	0722	1727	0645	1803	0559	1833	0514	1903	0447	1931	0447	1942	0508	1926	0537	1846	0606	1756	0637	1712	0711	1648	0731	1656
30	0721	1728			0558	1834	0513	1904	0446	1931	0447	1942	0509	1925	0538	1844	0607	1754	0638	1711	0712	1648	0731	1657
31	0720	1730			0556	1835			0446	1932			0510	1924	0539	1843			0639	1710			0732	1658

Add one hour for daylight time, if and when in use.

FORT YATES, NORTH DAKOTA

Astronomical Applications Dept.
U. S. Naval Observatory

Location: W100° 38', N46° 05'

Central Standard Time

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0825	1707	0806	1747	0720	1830	0621	1912	0528	1952	0455	2027	0456	2037	0525	2011	0604	1920	0642	1821	0724	1728	0805	1658
02	0825	1708	0804	1749	0719	1831	0619	1913	0527	1953	0454	2028	0456	2037	0527	2010	0605	1918	0643	1819	0726	1726	0806	1658
03	0825	1709	0803	1750	0717	1833	0617	1915	0525	1954	0454	2028	0457	2037	0528	2009	0606	1916	0644	1818	0727	1725	0807	1658
04	0825	1710	0802	1752	0715	1834	0616	1916	0524	1955	0453	2029	0458	2036	0529	2007	0608	1914	0646	1816	0728	1723	0808	1658
05	0825	1711	0800	1753	0713	1835	0614	1917	0522	1957	0453	2030	0458	2036	0530	2006	0609	1912	0647	1814	0730	1722	0809	1657
06	0824	1712	0759	1755	0711	1837	0612	1919	0521	1958	0452	2031	0459	2035	0531	2004	0610	1910	0648	1812	0731	1721	0810	1657
07	0824	1713	0758	1756	0709	1838	0610	1920	0520	1959	0452	2031	0500	2035	0533	2003	0611	1908	0650	1810	0733	1719	0811	1657
08	0824	1715	0756	1758	0707	1840	0608	1921	0518	2000	0452	2032	0501	2034	0534	2001	0613	1906	0651	1808	0734	1718	0812	1657
09	0824	1716	0755	1759	0706	1841	0606	1923	0517	2002	0452	2033	0501	2034	0535	2000	0614	1904	0652	1806	0736	1717	0813	1657
10	0823	1717	0754	1801	0704	1842	0604	1924	0516	2003	0451	2033	0502	2033	0536	1958	0615	1903	0654	1804	0737	1716	0814	1657
11	0823	1718	0752	1802	0702	1844	0602	1925	0514	2004	0451	2034	0503	2033	0538	1957	0616	1901	0655	1803	0738	1714	0815	1657
12	0823	1719	0751	1804	0700	1845	0601	1926	0513	2005	0451	2034	0504	2032	0539	1955	0618	1859	0656	1801	0740	1713	0816	1657
13	0822	1721	0749	1805	0658	1846	0559	1928	0512	2007	0451	2035	0505	2031	0540	1954	0619	1857	0658	1759	0741	1712	0817	1657
14	0822	1722	0748	1807	0656	1848	0557	1929	0511	2008	0451	2035	0506	2031	0541	1952	0620	1855	0659	1757	0743	1711	0818	1657
15	0821	1723	0746	1808	0654	1849	0555	1930	0509	2009	0451	2036	0507	2030	0543	1950	0621	1853	0700	1755	0744	1710	0818	1658
16	0820	1724	0744	1809	0652	1851	0553	1932	0508	2010	0451	2036	0508	2029	0544	1949	0623	1851	0702	1754	0745	1709	0819	1658
17	0820	1726	0743	1811	0650	1852	0552	1933	0507	2011	0451	2036	0509	2028	0545	1947	0624	1849	0703	1752	0747	1708	0820	1658
18	0819	1727	0741	1812	0648	1853	0550	1934	0506	2012	0451	2037	0510	2027	0546	1945	0625	1847	0704	1750	0748	1707	0820	1658
19	0818	1728	0740	1814	0646	1855	0548	1936	0505	2014	0451	2037	0511	2026	0548	1944	0626	1845	0706	1748	0750	1706	0821	1659
20	0818	1730	0738	1815	0645	1856	0546	1937	0504	2015	0451	2037	0512	2025	0549	1942	0628	1843	0707	1747	0751	1705	0822	1659
21	0817	1731	0736	1817	0643	1857	0545	1938	0503	2016	0452	2037	0513	2024	0550	1940	0629	1841	0708	1745	0752	1704	0822	1700
22	0816	1733	0735	1818	0641	1859	0543	1940	0502	2017	0452	2038	0514	2023	0551	1938	0630	1839	0710	1743	0754	1704	0823	1700
23	0815	1734	0733	1820	0639	1900	0541	1941	0501	2018	0452	2038	0515	2022	0553	1936	0631	1837	0711	1742	0755	1703	0823	1701
24	0814	1735	0731	1821	0637	1901	0540	1942	0500	2019	0452	2038	0516	2021	0554	1935	0633	1835	0713	1740	0756	1702	0823	1702
25	0813	1737	0729	1823	0635	1903	0538	1944	0500	2020	0453	2038	0517	2020	0555	1933	0634	1833	0714	1738	0758	1702	0824	1702
26	0812	1738	0728	1824	0633	1904	0536	1945	0459	2021	0453	2038	0518	2019	0556	1931	0635	1831	0716	1737	0759	1701	0824	1703
27	0811	1740	0726	1825	0631	1905	0535	1946	0458	2022	0454	2038	0519	2018	0558	1929	0637	1829	0717	1735	0800	1700	0824	1704
28	0810	1741	0724	1827	0629	1907	0533	1948	0457	2023	0454	2038	0521	2017	0559	1927	0638	1827	0718	1734	0801	1700	0824	1704
29	0809	1743	0722	1828	0627	1908	0532	1949	0457	2024	0455	2037	0522	2015	0600	1925	0639	1825	0720	1732	0803	1659	0825	1705
30	0808	1744			0625	1909	0530	1950	0456	2025	0455	2037	0523	2014	0601	1924	0640	1823	0721	1730	0804	1659	0825	1706
31	0807	1746			0623	1911			0455	2026			0524	2013	0603	1922			0723	1729			0825	1707

Add one hour for daylight time, if and when in use.

HURON, SOUTH DAKOTA

Astronomical Applications Dept.
U. S. Naval Observatory

Location: W098° 13', N44° 22'

Central Standard Time

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0809	1704	0752	1742	0709	1822	0613	1901	0523	1938	0452	2011	0453	2021	0521	1957	0556	1908	0631	1813	0711	1722	0749	1655
02	0809	1705	0750	1743	0707	1823	0611	1902	0521	1939	0451	2011	0453	2020	0522	1956	0557	1906	0633	1811	0712	1720	0750	1654
03	0809	1706	0749	1745	0706	1824	0609	1903	0520	1940	0451	2012	0454	2020	0523	1954	0559	1905	0634	1809	0713	1719	0752	1654
04	0809	1707	0748	1746	0704	1826	0608	1905	0519	1941	0450	2013	0455	2020	0524	1953	0600	1903	0635	1807	0715	1718	0753	1654
05	0809	1708	0747	1747	0702	1827	0606	1906	0517	1942	0450	2014	0455	2019	0525	1952	0601	1901	0636	1805	0716	1716	0754	1654
06	0809	1709	0746	1749	0700	1828	0604	1907	0516	1944	0449	2014	0456	2019	0526	1950	0602	1859	0637	1803	0718	1715	0755	1654
07	0808	1710	0744	1750	0659	1830	0602	1908	0515	1945	0449	2015	0457	2019	0527	1949	0603	1857	0639	1802	0719	1714	0756	1654
08	0808	1711	0743	1752	0657	1831	0600	1909	0513	1946	0449	2016	0458	2018	0529	1948	0604	1855	0640	1800	0720	1713	0757	1653
09	0808	1712	0742	1753	0655	1832	0559	1911	0512	1947	0449	2016	0458	2018	0530	1946	0606	1854	0641	1758	0722	1711	0757	1653
10	0808	1713	0740	1754	0653	1833	0557	1912	0511	1948	0448	2017	0459	2017	0531	1945	0607	1852	0642	1756	0723	1710	0758	1654
11	0807	1714	0739	1756	0652	1835	0555	1913	0510	1949	0448	2017	0500	2017	0532	1943	0608	1850	0644	1755	0724	1709	0759	1654
12	0807	1715	0738	1757	0650	1836	0553	1914	0509	1951	0448	2018	0501	2016	0533	1942	0609	1848	0645	1753	0726	1708	0800	1654
13	0807	1717	0736	1759	0648	1837	0552	1916	0507	1952	0448	2018	0502	2015	0534	1940	0610	1846	0646	1751	0727	1707	0801	1654
14	0806	1718	0735	1800	0646	1839	0550	1917	0506	1953	0448	2019	0502	2015	0535	1939	0611	1844	0647	1749	0728	1706	0802	1654
15	0806	1719	0733	1801	0644	1840	0548	1918	0505	1954	0448	2019	0503	2014	0537	1937	0612	1842	0649	1748	0730	1705	0802	1654
16	0805	1720	0732	1803	0642	1841	0547	1919	0504	1955	0448	2019	0504	2013	0538	1935	0614	1840	0650	1746	0731	1704	0803	1655
17	0805	1722	0730	1804	0641	1842	0545	1921	0503	1956	0448	2020	0505	2012	0539	1934	0615	1839	0651	1744	0732	1703	0804	1655
18	0804	1723	0729	1806	0639	1844	0543	1922	0502	1957	0448	2020	0506	2012	0540	1932	0616	1837	0652	1743	0733	1702	0804	1655
19	0803	1724	0727	1807	0637	1845	0542	1923	0501	1958	0448	2020	0507	2011	0541	1931	0617	1835	0654	1741	0735	1702	0805	1656
20	0803	1725	0726	1808	0635	1846	0540	1924	0500	1959	0449	2021	0508	2010	0542	1929	0618	1833	0655	1739	0736	1701	0805	1656
21	0802	1727	0724	1810	0633	1847	0538	1925	0459	2000	0449	2021	0509	2009	0544	1927	0619	1831	0656	1738	0737	1700	0806	1657
22	0801	1728	0722	1811	0631	1849	0537	1927	0458	2001	0449	2021	0510	2008	0545	1926	0621	1829	0658	1736	0739	1659	0806	1657
23	0800	1729	0721	1812	0630	1850	0535	1928	0458	2002	0449	2021	0511	2007	0546	1924	0622	1827	0659	1735	0740	1659	0807	1658
24	0759	1731	0719	1814	0628	1851	0533	1929	0457	2003	0450	2021	0512	2006	0547	1922	0623	1825	0700	1733	0741	1658	0807	1658
25	0759	1732	0718	1815	0626	1852	0532	1930	0456	2004	0450	2021	0513	2005	0548	1920	0624	1824	0701	1732	0742	1657	0808	1659
26	0758	1733	0716	1816	0624	1853	0530	1932	0455	2005	0450	2021	0514	2004	0549	1919	0625	1822	0703	1730	0744	1657	0808	1700
27	0757	1735	0714	1818	0622	1855	0529	1933	0455	2006	0451	2021	0515	2003	0551	1917	0627	1820	0704	1729	0745	1656	0808	1700
28	0756	1736	0713	1819	0620	1856	0527	1934	0454	2007	0451	2021	0516	2002	0552	1915	0628	1818	0705	1727	0746	1656	0808	1701
29	0755	1738	0711	1820	0618	1857	0526	1935	0453	2008	0452	2021	0517	2001	0553	1913	0629	1816	0707	1726	0747	1656	0809	1702
30	0754	1739			0617	1858	0524	1936	0453	2009	0452	2021	0518	1959	0554	1912	0630	1814	0708	1724	0748	1655	0809	1703
31	0753	1740			0615	1900			0452	2010			0520	1958	0555	1910			0709	1723			0809	1704

Add one hour for daylight time, if and when in use.

PIERRE, SOUTH DAKOTA

Astronomical Applications Dept.
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Location: W100° 20', N44° 22'

Central Standard Time

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0817	1712	0800	1750	0718	1830	0621	1909	0531	1946	0500	2019	0501	2029	0529	2005	0605	1917	0640	1821	0719	1730	0758	1703
02	0817	1713	0759	1752	0716	1831	0620	1911	0530	1947	0459	2020	0502	2029	0530	2004	0606	1915	0641	1819	0721	1729	0759	1703
03	0817	1714	0758	1753	0714	1833	0618	1912	0529	1949	0459	2021	0502	2029	0531	2003	0607	1913	0642	1817	0722	1727	0800	1703
04	0817	1715	0757	1754	0712	1834	0616	1913	0527	1950	0459	2021	0503	2028	0532	2002	0608	1911	0643	1816	0723	1726	0801	1702
05	0817	1716	0755	1756	0711	1835	0614	1914	0526	1951	0458	2022	0504	2028	0534	2000	0609	1909	0645	1814	0725	1725	0802	1702
06	0817	1717	0754	1757	0709	1837	0612	1916	0524	1952	0458	2023	0504	2028	0535	1959	0611	1908	0646	1812	0726	1723	0803	1702
07	0817	1718	0753	1759	0707	1838	0611	1917	0523	1953	0458	2023	0505	2027	0536	1957	0612	1906	0647	1810	0727	1722	0804	1702
08	0817	1719	0752	1800	0705	1839	0609	1918	0522	1955	0457	2024	0506	2027	0537	1956	0613	1904	0648	1808	0729	1721	0805	1702
09	0817	1720	0750	1801	0704	1841	0607	1919	0521	1956	0457	2025	0507	2026	0538	1955	0614	1902	0650	1807	0730	1720	0806	1702
10	0816	1722	0749	1803	0702	1842	0605	1920	0519	1957	0457	2025	0507	2026	0539	1953	0615	1900	0651	1805	0731	1719	0807	1702
11	0816	1723	0747	1804	0700	1843	0604	1922	0518	1958	0457	2026	0508	2025	0541	1952	0616	1858	0652	1803	0733	1718	0808	1702
12	0816	1724	0746	1806	0658	1844	0602	1923	0517	1959	0457	2026	0509	2025	0542	1950	0618	1856	0653	1801	0734	1717	0809	1702
13	0815	1725	0745	1807	0656	1846	0600	1924	0516	2000	0457	2027	0510	2024	0543	1949	0619	1855	0655	1800	0735	1716	0809	1702
14	0815	1726	0743	1808	0655	1847	0558	1925	0515	2001	0457	2027	0511	2023	0544	1947	0620	1853	0656	1758	0737	1715	0810	1703
15	0814	1728	0742	1810	0653	1848	0557	1927	0514	2002	0457	2028	0512	2023	0545	1945	0621	1851	0657	1756	0738	1714	0811	1703
16	0814	1729	0740	1811	0651	1850	0555	1928	0513	2004	0457	2028	0513	2022	0546	1944	0622	1849	0658	1755	0739	1713	0812	1703
17	0813	1730	0739	1813	0649	1851	0553	1929	0512	2005	0457	2028	0514	2021	0547	1942	0623	1847	0700	1753	0741	1712	0812	1703
18	0812	1731	0737	1814	0647	1852	0552	1930	0511	2006	0457	2029	0515	2020	0549	1941	0624	1845	0701	1751	0742	1711	0813	1704
19	0812	1733	0736	1815	0645	1853	0550	1932	0510	2007	0457	2029	0515	2019	0550	1939	0626	1843	0702	1750	0743	1710	0813	1704
20	0811	1734	0734	1817	0644	1855	0548	1933	0509	2008	0457	2029	0516	2018	0551	1937	0627	1841	0703	1748	0745	1709	0814	1705
21	0810	1735	0733	1818	0642	1856	0547	1934	0508	2009	0457	2029	0517	2018	0552	1936	0628	1840	0705	1746	0746	1709	0814	1705
22	0810	1737	0731	1819	0640	1857	0545	1935	0507	2010	0458	2029	0518	2017	0553	1934	0629	1838	0706	1745	0747	1708	0815	1706
23	0809	1738	0729	1821	0638	1858	0544	1936	0506	2011	0458	2030	0519	2016	0554	1932	0630	1836	0707	1743	0748	1707	0815	1706
24	0808	1739	0728	1822	0636	1859	0542	1938	0505	2012	0458	2030	0520	2015	0556	1931	0631	1834	0709	1742	0750	1707	0816	1707
25	0807	1741	0726	1824	0634	1901	0540	1939	0504	2013	0459	2030	0522	2014	0557	1929	0633	1832	0710	1740	0751	1706	0816	1707
26	0806	1742	0724	1825	0632	1902	0539	1940	0504	2014	0459	2030	0523	2012	0558	1927	0634	1830	0711	1739	0752	1705	0816	1708
27	0805	1743	0723	1826	0631	1903	0537	1941	0503	2015	0459	2030	0524	2011	0559	1925	0635	1828	0713	1737	0753	1705	0817	1709
28	0804	1745	0721	1828	0629	1904	0536	1943	0502	2016	0500	2030	0525	2010	0600	1924	0636	1827	0714	1736	0754	1704	0817	1710
29	0803	1746	0719	1829	0627	1906	0534	1944	0502	2017	0500	2029	0526	2009	0601	1922	0637	1825	0715	1734	0756	1704	0817	1710
30	0802	1747			0625	1907	0533	1945	0501	2017	0501	2029	0527	2008	0602	1920	0639	1823	0717	1733	0757	1704	0817	1711
31	0801	1749			0623	1908			0500	2018			0528	2007	0604	1918			0718	1731			0817	1712

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RAPID CITY, SOUTH DAKOTA

Astronomical Applications Dept.
U. S. Naval Observatory

Location: W103° 14', N44° 04'

Mountain Standard Time

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0728	1625	0711	1703	0629	1742	0533	1821	0444	1857	0413	1930	0414	1940	0442	1916	0517	1828	0551	1733	0630	1642	0708	1616
02	0728	1626	0710	1704	0627	1743	0531	1822	0442	1858	0412	1930	0415	1939	0443	1915	0518	1826	0552	1731	0632	1641	0710	1615
03	0728	1627	0709	1705	0625	1745	0530	1823	0441	1859	0412	1931	0415	1939	0444	1914	0519	1824	0554	1729	0633	1640	0711	1615
04	0728	1628	0707	1707	0624	1746	0528	1824	0439	1901	0411	1932	0416	1939	0445	1912	0520	1822	0555	1727	0634	1638	0712	1615
05	0728	1629	0706	1708	0622	1747	0526	1826	0438	1902	0411	1933	0416	1938	0446	1911	0521	1821	0556	1725	0636	1637	0713	1615
06	0728	1630	0705	1709	0620	1748	0524	1827	0437	1903	0411	1933	0417	1938	0447	1910	0522	1819	0557	1724	0637	1636	0714	1615
07	0728	1631	0704	1711	0618	1750	0523	1828	0436	1904	0410	1934	0418	1938	0448	1908	0524	1817	0558	1722	0638	1635	0715	1615
08	0727	1632	0702	1712	0617	1751	0521	1829	0434	1905	0410	1935	0419	1937	0449	1907	0525	1815	0600	1720	0640	1633	0716	1615
09	0727	1633	0701	1714	0615	1752	0519	1830	0433	1906	0410	1935	0419	1937	0450	1905	0526	1813	0601	1718	0641	1632	0716	1615
10	0727	1634	0700	1715	0613	1754	0517	1832	0432	1908	0410	1936	0420	1936	0452	1904	0527	1811	0602	1717	0642	1631	0717	1615
11	0727	1635	0658	1716	0611	1755	0516	1833	0431	1909	0409	1936	0421	1936	0453	1902	0528	1810	0603	1715	0644	1630	0718	1615
12	0726	1636	0657	1718	0610	1756	0514	1834	0429	1910	0409	1937	0422	1935	0454	1901	0529	1808	0605	1713	0645	1629	0719	1615
13	0726	1638	0656	1719	0608	1757	0512	1835	0428	1911	0409	1937	0423	1934	0455	1859	0530	1806	0606	1711	0646	1628	0720	1615
14	0725	1639	0654	1721	0606	1759	0510	1837	0427	1912	0409	1938	0423	1934	0456	1858	0532	1804	0607	1710	0648	1627	0721	1615
15	0725	1640	0653	1722	0604	1800	0509	1838	0426	1913	0409	1938	0424	1933	0457	1856	0533	1802	0608	1708	0649	1626	0721	1615
16	0724	1641	0651	1723	0602	1801	0507	1839	0425	1914	0409	1938	0425	1932	0458	1855	0534	1800	0610	1706	0650	1625	0722	1616
17	0724	1643	0650	1725	0601	1802	0505	1840	0424	1915	0409	1939	0426	1932	0500	1853	0535	1759	0611	1705	0651	1624	0723	1616
18	0723	1644	0648	1726	0559	1804	0504	1841	0423	1916	0409	1939	0427	1931	0501	1852	0536	1757	0612	1703	0653	1623	0723	1616
19	0722	1645	0647	1727	0557	1805	0502	1843	0422	1917	0410	1939	0428	1930	0502	1850	0537	1755	0613	1702	0654	1623	0724	1617
20	0722	1646	0645	1729	0555	1806	0500	1844	0421	1918	0410	1940	0429	1929	0503	1848	0538	1753	0615	1700	0655	1622	0724	1617
21	0721	1648	0644	1730	0553	1807	0459	1845	0420	1919	0410	1940	0430	1928	0504	1847	0540	1751	0616	1658	0657	1621	0725	1618
22	0720	1649	0642	1731	0551	1808	0457	1846	0419	1920	0410	1940	0431	1927	0505	1845	0541	1749	0617	1657	0658	1620	0725	1618
23	0720	1650	0641	1733	0550	1810	0456	1847	0419	1921	0411	1940	0432	1926	0506	1843	0542	1747	0618	1655	0659	1620	0726	1619
24	0719	1652	0639	1734	0548	1811	0454	1849	0418	1922	0411	1940	0433	1925	0508	1842	0543	1746	0620	1654	0700	1619	0726	1619
25	0718	1653	0637	1735	0546	1812	0453	1850	0417	1923	0411	1940	0434	1924	0509	1840	0544	1744	0621	1652	0701	1618	0727	1620
26	0717	1654	0636	1737	0544	1813	0451	1851	0416	1924	0412	1940	0435	1923	0510	1838	0545	1742	0622	1651	0703	1618	0727	1621
27	0716	1656	0634	1738	0542	1815	0449	1852	0416	1925	0412	1940	0436	1922	0511	1837	0547	1740	0624	1649	0704	1617	0727	1622
28	0715	1657	0632	1739	0541	1816	0448	1853	0415	1926	0412	1940	0437	1921	0512	1835	0548	1738	0625	1648	0705	1617	0727	1622
29	0714	1658	0631	1741	0539	1817	0447	1855	0414	1927	0413	1940	0438	1920	0513	1833	0549	1736	0626	1646	0706	1616	0728	1623
30	0713	1700			0537	1818	0445	1856	0414	1928	0413	1940	0439	1919	0514	1831	0550	1735	0628	1645	0707	1616	0728	1624
31	0712	1701			0535	1819			0413	1929			0440	1917	0516	1830			0629	1644			0728	1625

Add one hour for daylight time, if and when in use.

CASPER, WYOMING

Astronomical Applications Dept.
U. S. Naval Observatory

Location: W106° 19', N42° 50'

Mountain Standard Time

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0736	1642	0720	1718	0640	1755	0546	1832	0459	1907	0429	1938	0431	1947	0457	1925	0531	1839	0603	1746	0640	1657	0717	1632
02	0736	1642	0719	1719	0638	1757	0545	1833	0457	1908	0429	1938	0431	1947	0458	1924	0532	1837	0604	1744	0642	1656	0718	1632
03	0736	1643	0718	1720	0637	1758	0543	1834	0456	1909	0428	1939	0432	1947	0459	1923	0533	1835	0605	1742	0643	1654	0719	1632
04	0736	1644	0717	1722	0635	1759	0541	1836	0455	1910	0428	1940	0433	1947	0500	1922	0534	1834	0607	1740	0644	1653	0720	1631
05	0736	1645	0716	1723	0633	1800	0540	1837	0453	1911	0428	1941	0433	1946	0501	1920	0535	1832	0608	1739	0645	1652	0721	1631
06	0736	1646	0715	1724	0632	1802	0538	1838	0452	1912	0427	1941	0434	1946	0502	1919	0536	1830	0609	1737	0647	1651	0722	1631
07	0736	1647	0714	1726	0630	1803	0536	1839	0451	1913	0427	1942	0435	1946	0504	1918	0537	1828	0610	1735	0648	1650	0723	1631
08	0736	1648	0712	1727	0628	1804	0534	1840	0450	1914	0427	1942	0435	1945	0505	1916	0538	1827	0611	1733	0649	1649	0724	1631
09	0736	1649	0711	1728	0627	1805	0533	1841	0449	1916	0427	1943	0436	1945	0506	1915	0539	1825	0612	1732	0650	1647	0725	1631
10	0735	1650	0710	1730	0625	1806	0531	1843	0447	1917	0426	1944	0437	1944	0507	1914	0540	1823	0613	1730	0652	1646	0726	1631
11	0735	1652	0708	1731	0623	1808	0529	1844	0446	1918	0426	1944	0438	1944	0508	1912	0541	1821	0615	1728	0653	1645	0726	1631
12	0735	1653	0707	1732	0622	1809	0528	1845	0445	1919	0426	1945	0438	1943	0509	1911	0542	1819	0616	1727	0654	1644	0727	1631
13	0734	1654	0706	1734	0620	1810	0526	1846	0444	1920	0426	1945	0439	1943	0510	1909	0543	1818	0617	1725	0656	1643	0728	1632
14	0734	1655	0704	1735	0618	1811	0524	1847	0443	1921	0426	1945	0440	1942	0511	1908	0545	1816	0618	1723	0657	1642	0729	1632
15	0733	1656	0703	1736	0616	1812	0523	1848	0442	1922	0426	1946	0441	1941	0512	1906	0546	1814	0619	1722	0658	1642	0729	1632
16	0733	1657	0702	1738	0615	1814	0521	1849	0441	1923	0426	1946	0442	1941	0513	1905	0547	1812	0620	1720	0659	1641	0730	1632
17	0732	1659	0700	1739	0613	1815	0520	1851	0440	1924	0426	1947	0443	1940	0514	1903	0548	1810	0622	1719	0701	1640	0731	1633
18	0732	1700	0659	1740	0611	1816	0518	1852	0439	1925	0426	1947	0443	1939	0515	1902	0549	1809	0623	1717	0702	1639	0731	1633
19	0731	1701	0657	1742	0609	1817	0516	1853	0438	1926	0427	1947	0444	1938	0516	1900	0550	1807	0624	1715	0703	1638	0732	1633
20	0731	1702	0656	1743	0608	1818	0515	1854	0437	1927	0427	1947	0445	1938	0518	1859	0551	1805	0625	1714	0704	1638	0733	1634
21	0730	1703	0654	1744	0606	1819	0513	1855	0436	1928	0427	1947	0446	1937	0519	1857	0552	1803	0627	1712	0705	1637	0733	1634
22	0729	1705	0653	1745	0604	1821	0512	1856	0436	1929	0427	1948	0447	1936	0520	1855	0553	1802	0628	1711	0707	1636	0734	1635
23	0729	1706	0651	1747	0602	1822	0510	1857	0435	1930	0427	1948	0448	1935	0521	1854	0554	1800	0629	1709	0708	1636	0734	1636
24	0728	1707	0650	1748	0601	1823	0509	1859	0434	1931	0428	1948	0449	1934	0522	1852	0555	1758	0630	1708	0709	1635	0734	1636
25	0727	1709	0648	1749	0559	1824	0507	1900	0433	1932	0428	1948	0450	1933	0523	1851	0556	1756	0631	1706	0710	1634	0735	1637
26	0726	1710	0647	1750	0557	1825	0506	1901	0433	1933	0429	1948	0451	1932	0524	1849	0558	1754	0633	1705	0711	1634	0735	1637
27	0725	1711	0645	1752	0555	1826	0504	1902	0432	1934	0429	1948	0452	1931	0525	1847	0559	1753	0634	1704	0712	1634	0735	1638
28	0724	1712	0643	1753	0553	1828	0503	1903	0431	1934	0429	1948	0453	1930	0526	1846	0600	1751	0635	1702	0714	1633	0736	1639
29	0723	1714	0642	1754	0552	1829	0501	1904	0431	1935	0430	1948	0454	1929	0527	1844	0601	1749	0636	1701	0715	1633	0736	1640
30	0722	1715			0550	1830	0500	1905	0430	1936	0430	1948	0455	1928	0528	1842	0602	1747	0638	1700	0716	1632	0736	1641
31	0721	1716			0548	1831			0430	1937			0456	1926	0529	1840			0639	1658			0736	1641

Add one hour for daylight time, if and when in use.

CHEYENNE, WYOMING

Astronomical Applications Dept.
U. S. Naval Observatory

Location: W104° 48', N41° 08'

Mountain Standard Time

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0725	1641	0710	1715	0633	1751	0542	1825	0456	1857	0429	1926	0431	1936	0455	1915	0526	1831	0556	1740	0631	1654	0706	1631
02	0725	1642	0709	1717	0631	1752	0540	1826	0455	1858	0428	1927	0431	1935	0456	1914	0527	1829	0557	1738	0632	1653	0707	1631
03	0725	1643	0708	1718	0629	1753	0538	1827	0454	1859	0428	1927	0432	1935	0457	1913	0528	1828	0559	1737	0633	1652	0708	1631
04	0725	1644	0707	1719	0628	1754	0537	1828	0453	1900	0428	1928	0432	1935	0458	1911	0529	1826	0600	1735	0635	1651	0709	1631
05	0725	1645	0706	1720	0626	1755	0535	1829	0451	1901	0427	1929	0433	1935	0459	1910	0530	1824	0601	1734	0636	1649	0710	1630
06	0725	1645	0705	1722	0625	1757	0533	1830	0450	1902	0427	1929	0434	1934	0500	1909	0531	1823	0602	1732	0637	1648	0711	1630
07	0725	1646	0704	1723	0623	1758	0532	1831	0449	1903	0427	1930	0434	1934	0501	1908	0532	1821	0603	1730	0638	1647	0711	1630
08	0724	1647	0703	1724	0621	1759	0530	1832	0448	1904	0427	1930	0435	1934	0502	1906	0533	1819	0604	1729	0639	1646	0712	1630
09	0724	1648	0702	1725	0620	1800	0529	1833	0447	1905	0426	1931	0436	1933	0503	1905	0534	1818	0605	1727	0641	1645	0713	1630
10	0724	1650	0701	1727	0618	1801	0527	1834	0446	1906	0426	1932	0436	1933	0504	1904	0535	1816	0606	1725	0642	1644	0714	1630
11	0724	1651	0659	1728	0617	1802	0525	1836	0445	1907	0426	1932	0437	1932	0505	1903	0536	1814	0607	1724	0643	1643	0715	1631
12	0724	1652	0658	1729	0615	1803	0524	1837	0444	1908	0426	1933	0438	1932	0506	1901	0537	1812	0608	1722	0644	1642	0716	1631
13	0723	1653	0657	1730	0613	1804	0522	1838	0442	1909	0426	1933	0439	1931	0507	1900	0538	1811	0609	1721	0645	1641	0716	1631
14	0723	1654	0656	1732	0612	1805	0521	1839	0442	1910	0426	1933	0439	1931	0508	1858	0539	1809	0610	1719	0647	1641	0717	1631
15	0722	1655	0654	1733	0610	1807	0519	1840	0441	1911	0426	1934	0440	1930	0509	1857	0540	1807	0611	1718	0648	1640	0718	1631
16	0722	1656	0653	1734	0608	1808	0518	1841	0440	1912	0426	1934	0441	1929	0510	1856	0541	1806	0613	1716	0649	1639	0718	1632
17	0722	1657	0652	1735	0607	1809	0516	1842	0439	1913	0426	1934	0442	1929	0511	1854	0542	1804	0614	1715	0650	1638	0719	1632
18	0721	1658	0650	1737	0605	1810	0514	1843	0438	1914	0426	1935	0443	1928	0512	1853	0543	1802	0615	1713	0651	1637	0720	1633
19	0721	1700	0649	1738	0603	1811	0513	1844	0437	1915	0426	1935	0443	1927	0513	1851	0544	1800	0616	1712	0652	1637	0720	1633
20	0720	1701	0647	1739	0602	1812	0511	1845	0436	1916	0427	1935	0444	1926	0514	1850	0545	1759	0617	1710	0654	1636	0721	1633
21	0719	1702	0646	1740	0600	1813	0510	1846	0435	1917	0427	1935	0445	1926	0515	1848	0546	1757	0618	1709	0655	1635	0721	1634
22	0719	1703	0645	1741	0558	1814	0509	1847	0435	1918	0427	1936	0446	1925	0516	1847	0547	1755	0619	1707	0656	1635	0722	1634
23	0718	1704	0643	1743	0557	1815	0507	1848	0434	1919	0427	1936	0447	1924	0517	1845	0548	1754	0620	1706	0657	1634	0722	1635
24	0717	1706	0642	1744	0555	1816	0506	1849	0433	1920	0428	1936	0448	1923	0518	1844	0549	1752	0622	1704	0658	1634	0723	1636
25	0717	1707	0640	1745	0553	1817	0504	1850	0432	1920	0428	1936	0449	1922	0519	1842	0550	1750	0623	1703	0659	1633	0723	1636
26	0716	1708	0639	1746	0552	1818	0503	1852	0432	1921	0428	1936	0450	1921	0520	1841	0551	1749	0624	1702	0700	1633	0723	1637
27	0715	1709	0637	1747	0550	1820	0502	1853	0431	1922	0429	1936	0451	1920	0521	1839	0552	1747	0625	1700	0701	1632	0724	1638
28	0714	1710	0636	1748	0548	1821	0500	1854	0431	1923	0429	1936	0452	1919	0522	1837	0553	1745	0626	1659	0703	1632	0724	1638
29	0713	1712	0634	1750	0547	1822	0459	1855	0430	1924	0430	1936	0453	1918	0523	1836	0554	1743	0627	1658	0704	1632	0724	1639
30	0712	1713			0545	1823	0458	1856	0430	1924	0430	1936	0453	1917	0524	1834	0555	1742	0629	1657	0705	1631	0724	1640
31	0711	1714			0543	1824			0429	1925			0454	1916	0525	1833			0630	1655			0724	1641

Add one hour for daylight time, if and when in use.

GREYBULL, WYOMING

Astronomical Applications Dept.
U. S. Naval Observatory

Location: W108° 03', N44° 29'

Mountain Standard Time

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0749	1643	0731	1721	0649	1801	0552	1840	0502	1917	0430	1950	0432	2000	0500	1937	0536	1848	0611	1752	0650	1701	0729	1634
02	0749	1644	0730	1722	0647	1802	0550	1842	0500	1918	0430	1951	0432	2000	0501	1935	0537	1846	0612	1750	0652	1659	0730	1633
03	0749	1645	0729	1724	0645	1804	0549	1843	0459	1920	0429	1952	0433	2000	0502	1934	0538	1844	0613	1748	0653	1658	0731	1633
04	0749	1646	0728	1725	0643	1805	0547	1844	0458	1921	0429	1953	0434	2000	0503	1933	0539	1842	0614	1746	0654	1657	0732	1633
05	0749	1647	0726	1726	0642	1806	0545	1845	0456	1922	0429	1953	0434	1959	0504	1931	0540	1840	0616	1744	0656	1655	0733	1633
06	0748	1648	0725	1728	0640	1807	0543	1847	0455	1923	0428	1954	0435	1959	0505	1930	0541	1838	0617	1743	0657	1654	0734	1633
07	0748	1649	0724	1729	0638	1809	0541	1848	0454	1924	0428	1955	0436	1959	0506	1929	0543	1837	0618	1741	0659	1653	0735	1632
08	0748	1650	0723	1731	0636	1810	0540	1849	0452	1926	0428	1955	0436	1958	0508	1927	0544	1835	0619	1739	0700	1652	0736	1632
09	0748	1651	0721	1732	0634	1811	0538	1850	0451	1927	0427	1956	0437	1958	0509	1926	0545	1833	0621	1737	0701	1650	0737	1632
10	0748	1652	0720	1734	0633	1813	0536	1851	0450	1928	0427	1957	0438	1957	0510	1924	0546	1831	0622	1736	0703	1649	0738	1632
11	0747	1653	0719	1735	0631	1814	0534	1853	0449	1929	0427	1957	0439	1956	0511	1923	0547	1829	0623	1734	0704	1648	0739	1632
12	0747	1654	0717	1736	0629	1815	0532	1854	0448	1930	0427	1958	0440	1956	0512	1921	0548	1827	0624	1732	0705	1647	0740	1633
13	0746	1656	0716	1738	0627	1817	0531	1855	0446	1931	0427	1958	0440	1955	0513	1920	0549	1825	0626	1730	0707	1646	0741	1633
14	0746	1657	0714	1739	0625	1818	0529	1856	0445	1933	0427	1959	0441	1955	0515	1918	0551	1824	0627	1729	0708	1645	0741	1633
15	0745	1658	0713	1741	0624	1819	0527	1858	0444	1934	0427	1959	0442	1954	0516	1917	0552	1822	0628	1727	0709	1644	0742	1633
16	0745	1659	0711	1742	0622	1820	0526	1859	0443	1935	0427	1959	0443	1953	0517	1915	0553	1820	0629	1725	0711	1643	0743	1633
17	0744	1701	0710	1743	0620	1822	0524	1900	0442	1936	0427	2000	0444	1952	0518	1913	0554	1818	0631	1723	0712	1642	0744	1634
18	0744	1702	0708	1745	0618	1823	0522	1901	0441	1937	0427	2000	0445	1951	0519	1912	0555	1816	0632	1722	0713	1641	0744	1634
19	0743	1703	0707	1746	0616	1824	0521	1903	0440	1938	0427	2000	0446	1951	0520	1910	0556	1814	0633	1720	0714	1641	0745	1635
20	0742	1704	0705	1747	0614	1825	0519	1904	0439	1939	0427	2000	0447	1950	0522	1908	0558	1812	0635	1719	0716	1640	0745	1635
21	0742	1706	0704	1749	0612	1827	0517	1905	0438	1940	0428	2001	0448	1949	0523	1907	0559	1810	0636	1717	0717	1639	0746	1636
22	0741	1707	0702	1750	0611	1828	0516	1906	0437	1941	0428	2001	0449	1948	0524	1905	0600	1808	0637	1715	0718	1638	0746	1636
23	0740	1708	0700	1752	0609	1829	0514	1908	0436	1942	0428	2001	0450	1947	0525	1903	0601	1807	0638	1714	0720	1638	0747	1637
24	0739	1710	0659	1753	0607	1830	0512	1909	0436	1943	0429	2001	0451	1946	0526	1902	0602	1805	0640	1712	0721	1637	0747	1637
25	0738	1711	0657	1754	0605	1832	0511	1910	0435	1944	0429	2001	0452	1945	0527	1900	0604	1803	0641	1711	0722	1636	0747	1638
26	0737	1712	0655	1756	0603	1833	0509	1911	0434	1945	0429	2001	0453	1944	0529	1858	0605	1801	0642	1709	0723	1636	0748	1639
27	0736	1714	0654	1757	0601	1834	0508	1912	0433	1946	0430	2001	0454	1943	0530	1856	0606	1759	0644	1708	0724	1635	0748	1639
28	0735	1715	0652	1758	0600	1835	0506	1914	0433	1947	0430	2001	0455	1941	0531	1855	0607	1757	0645	1706	0726	1635	0748	1640
29	0734	1717	0650	1800	0558	1837	0505	1915	0432	1948	0431	2001	0456	1940	0532	1853	0608	1755	0646	1705	0727	1634	0748	1641
30	0733	1718			0556	1838	0503	1916	0431	1949	0431	2001	0457	1939	0533	1851	0610	1754	0648	1703	0728	1634	0749	1642
31	0732	1719			0554	1839			0431	1950			0459	1938	0534	1849			0649	1702			0749	1643

Add one hour for daylight time, if and when in use.

LANDER, WYOMING

Astronomical Applications Dept.
U. S. Naval Observatory

Location: W108° 45', N42° 50'

Mountain Standard Time

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0746	1651	0730	1728	0650	1805	0556	1842	0508	1916	0439	1947	0441	1957	0507	1935	0540	1848	0613	1755	0650	1707	0727	1642
02	0746	1652	0729	1729	0648	1806	0554	1843	0507	1917	0438	1948	0441	1957	0508	1934	0541	1847	0614	1754	0651	1705	0728	1642
03	0746	1653	0728	1730	0647	1808	0553	1844	0506	1919	0438	1949	0442	1957	0509	1933	0542	1845	0615	1752	0653	1704	0729	1641
04	0746	1654	0727	1732	0645	1809	0551	1845	0504	1920	0438	1950	0442	1956	0510	1931	0543	1843	0616	1750	0654	1703	0730	1641
05	0746	1655	0726	1733	0643	1810	0549	1847	0503	1921	0437	1950	0443	1956	0511	1930	0545	1842	0617	1748	0655	1702	0731	1641
06	0746	1656	0724	1734	0642	1811	0548	1848	0502	1922	0437	1951	0444	1956	0512	1929	0546	1840	0619	1747	0656	1701	0732	1641
07	0746	1657	0723	1736	0640	1813	0546	1849	0501	1923	0437	1952	0444	1955	0513	1927	0547	1838	0620	1745	0658	1659	0733	1641
08	0745	1658	0722	1737	0638	1814	0544	1850	0459	1924	0437	1952	0445	1955	0514	1926	0548	1836	0621	1743	0659	1658	0734	1641
09	0745	1659	0721	1738	0636	1815	0542	1851	0458	1925	0436	1953	0446	1955	0515	1925	0549	1834	0622	1741	0700	1657	0734	1641
10	0745	1700	0719	1740	0635	1816	0541	1852	0457	1926	0436	1953	0447	1954	0516	1923	0550	1833	0623	1740	0701	1656	0735	1641
11	0745	1701	0718	1741	0633	1817	0539	1853	0456	1927	0436	1954	0447	1954	0518	1922	0551	1831	0624	1738	0703	1655	0736	1641
12	0744	1702	0717	1742	0631	1819	0537	1855	0455	1929	0436	1954	0448	1953	0519	1920	0552	1829	0625	1736	0704	1654	0737	1641
13	0744	1704	0716	1743	0630	1820	0536	1856	0454	1930	0436	1955	0449	1952	0520	1919	0553	1827	0627	1735	0705	1653	0738	1641
14	0744	1705	0714	1745	0628	1821	0534	1857	0453	1931	0436	1955	0450	1952	0521	1918	0554	1826	0628	1733	0706	1652	0738	1641
15	0743	1706	0713	1746	0626	1822	0533	1858	0452	1932	0436	1956	0451	1951	0522	1916	0555	1824	0629	1732	0708	1651	0739	1642
16	0743	1707	0711	1747	0624	1823	0531	1859	0451	1933	0436	1956	0451	1950	0523	1915	0556	1822	0630	1730	0709	1650	0740	1642
17	0742	1708	0710	1749	0623	1824	0529	1900	0450	1934	0436	1956	0452	1950	0524	1913	0557	1820	0631	1728	0710	1650	0741	1642
18	0742	1709	0708	1750	0621	1826	0528	1901	0449	1935	0436	1957	0453	1949	0525	1911	0559	1818	0633	1727	0711	1649	0741	1643
19	0741	1711	0707	1751	0619	1827	0526	1903	0448	1936	0436	1957	0454	1948	0526	1910	0600	1817	0634	1725	0713	1648	0742	1643
20	0740	1712	0706	1753	0617	1828	0525	1904	0447	1937	0436	1957	0455	1947	0527	1908	0601	1815	0635	1724	0714	1647	0742	1644
21	0740	1713	0704	1754	0615	1829	0523	1905	0446	1938	0437	1957	0456	1946	0528	1907	0602	1813	0636	1722	0715	1647	0743	1644
22	0739	1714	0703	1755	0614	1830	0521	1906	0445	1939	0437	1957	0457	1946	0529	1905	0603	1811	0637	1721	0716	1646	0743	1645
23	0738	1716	0701	1756	0612	1831	0520	1907	0445	1940	0437	1957	0458	1945	0531	1904	0604	1809	0639	1719	0718	1645	0744	1645
24	0737	1717	0659	1758	0610	1833	0518	1908	0444	1941	0438	1958	0459	1944	0532	1902	0605	1808	0640	1718	0719	1645	0744	1646
25	0737	1718	0658	1759	0608	1834	0517	1909	0443	1941	0438	1958	0500	1943	0533	1900	0606	1806	0641	1716	0720	1644	0744	1647
26	0736	1720	0656	1800	0607	1835	0515	1911	0442	1942	0438	1958	0501	1942	0534	1859	0607	1804	0642	1715	0721	1644	0745	1647
27	0735	1721	0655	1801	0605	1836	0514	1912	0442	1943	0439	1958	0502	1941	0535	1857	0608	1802	0644	1713	0722	1643	0745	1648
28	0734	1722	0653	1803	0603	1837	0513	1913	0441	1944	0439	1958	0503	1940	0536	1855	0610	1801	0645	1712	0723	1643	0745	1649
29	0733	1724	0651	1804	0601	1838	0511	1914	0441	1945	0440	1957	0504	1938	0537	1854	0611	1759	0646	1711	0724	1642	0745	1649
30	0732	1725			0600	1840	0510	1915	0440	1946	0440	1957	0505	1937	0538	1852	0612	1757	0647	1709	0726	1642	0746	1650
31	0731	1726			0558	1841			0439	1947			0506	1936	0539	1850			0649	1708			0746	1651

Add one hour for daylight time, if and when in use.

RAWLINS, WYOMING

Astronomical Applications Dept.
U. S. Naval Observatory

Location: W107° 14', N41° 47'

Mountain Standard Time

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0736	1649	0722	1724	0643	1800	0551	1835	0505	1908	0436	1938	0438	1947	0504	1926	0535	1841	0606	1750	0642	1703	0717	1639
02	0736	1650	0721	1725	0641	1801	0549	1836	0503	1909	0436	1939	0439	1947	0505	1925	0536	1840	0608	1748	0643	1701	0718	1639
03	0736	1650	0720	1726	0640	1802	0548	1837	0502	1910	0436	1939	0439	1947	0506	1924	0537	1838	0609	1746	0644	1700	0719	1639
04	0736	1651	0719	1728	0638	1804	0546	1838	0501	1911	0435	1940	0440	1947	0507	1923	0538	1836	0610	1745	0646	1659	0720	1638
05	0736	1652	0717	1729	0636	1805	0544	1839	0500	1912	0435	1941	0441	1947	0508	1921	0539	1835	0611	1743	0647	1658	0721	1638
06	0736	1653	0716	1730	0635	1806	0543	1841	0458	1913	0435	1941	0441	1946	0509	1920	0541	1833	0612	1741	0648	1657	0722	1638
07	0736	1654	0715	1732	0633	1807	0541	1842	0457	1914	0434	1942	0442	1946	0510	1919	0542	1831	0613	1740	0649	1656	0723	1638
08	0736	1655	0714	1733	0632	1808	0539	1843	0456	1915	0434	1942	0443	1945	0511	1918	0543	1829	0614	1738	0651	1655	0724	1638
09	0736	1656	0713	1734	0630	1809	0538	1844	0455	1917	0434	1943	0443	1945	0512	1916	0544	1828	0615	1736	0652	1654	0725	1638
10	0736	1657	0712	1735	0628	1811	0536	1845	0454	1918	0434	1944	0444	1945	0513	1915	0545	1826	0616	1735	0653	1653	0726	1638
11	0735	1658	0710	1737	0627	1812	0534	1846	0453	1919	0434	1944	0445	1944	0514	1914	0546	1824	0617	1733	0654	1652	0727	1638
12	0735	1659	0709	1738	0625	1813	0533	1847	0452	1920	0434	1945	0445	1944	0515	1912	0547	1823	0618	1731	0655	1651	0727	1638
13	0735	1701	0708	1739	0623	1814	0531	1848	0451	1921	0434	1945	0446	1943	0516	1911	0548	1821	0620	1730	0657	1650	0728	1639
14	0734	1702	0706	1740	0622	1815	0530	1849	0450	1922	0434	1945	0447	1942	0517	1909	0549	1819	0621	1728	0658	1649	0729	1639
15	0734	1703	0705	1742	0620	1816	0528	1850	0449	1923	0434	1946	0448	1942	0518	1908	0550	1817	0622	1727	0659	1648	0730	1639
16	0734	1704	0704	1743	0618	1817	0526	1852	0448	1924	0434	1946	0449	1941	0519	1907	0551	1816	0623	1725	0700	1647	0730	1639
17	0733	1705	0702	1744	0616	1818	0525	1853	0447	1925	0434	1946	0450	1940	0520	1905	0552	1814	0624	1724	0701	1646	0731	1640
18	0733	1706	0701	1745	0615	1820	0523	1854	0446	1926	0434	1947	0450	1940	0521	1904	0553	1812	0625	1722	0703	1646	0732	1640
19	0732	1708	0700	1747	0613	1821	0522	1855	0445	1927	0434	1947	0451	1939	0522	1902	0554	1810	0626	1721	0704	1645	0732	1641
20	0731	1709	0658	1748	0611	1822	0520	1856	0444	1928	0434	1947	0452	1938	0523	1901	0555	1809	0628	1719	0705	1644	0733	1641
21	0731	1710	0657	1749	0610	1823	0519	1857	0443	1929	0434	1947	0453	1937	0524	1859	0556	1807	0629	1718	0706	1643	0733	1642
22	0730	1711	0655	1750	0608	1824	0517	1858	0442	1929	0435	1948	0454	1936	0525	1857	0557	1805	0630	1716	0707	1643	0734	1642
23	0729	1712	0654	1752	0606	1825	0516	1859	0442	1930	0435	1948	0455	1936	0526	1856	0558	1803	0631	1715	0709	1642	0734	1643
24	0729	1714	0652	1753	0604	1826	0514	1900	0441	1931	0435	1948	0456	1935	0527	1854	0559	1802	0632	1713	0710	1642	0735	1643
25	0728	1715	0651	1754	0603	1827	0513	1901	0440	1932	0436	1948	0457	1934	0528	1853	0600	1800	0634	1712	0711	1641	0735	1644
26	0727	1716	0649	1755	0601	1828	0511	1903	0440	1933	0436	1948	0458	1933	0529	1851	0601	1758	0635	1710	0712	1641	0735	1645
27	0726	1717	0648	1756	0559	1830	0510	1904	0439	1934	0436	1948	0459	1932	0530	1850	0602	1756	0636	1709	0713	1640	0736	1645
28	0725	1719	0646	1758	0558	1831	0509	1905	0438	1935	0437	1948	0500	1931	0531	1848	0603	1755	0637	1708	0714	1640	0736	1646
29	0725	1720	0644	1759	0556	1832	0507	1906	0438	1935	0437	1948	0501	1930	0532	1846	0604	1753	0638	1706	0715	1640	0736	1647
30	0724	1721			0554	1833	0506	1907	0437	1936	0438	1948	0502	1929	0533	1845	0605	1751	0640	1705	0716	1639	0736	1648
31	0723	1723			0553	1834			0437	1937			0503	1927	0534	1843			0641	1704			0736	1648

Add one hour for daylight time, if and when in use.

SHERIDAN, WYOMING

Astronomical Applications Dept.
U. S. Naval Observatory

Location: W106° 58', N44° 48'

Mountain Standard Time

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0745	1637	0728	1716	0644	1756	0548	1836	0457	1914	0425	1947	0426	1957	0454	1933	0531	1844	0606	1747	0647	1656	0726	1628
02	0745	1638	0726	1717	0643	1758	0546	1837	0455	1915	0424	1948	0427	1957	0456	1932	0532	1842	0608	1745	0648	1654	0727	1628
03	0745	1639	0725	1719	0641	1759	0544	1839	0454	1916	0424	1949	0427	1957	0457	1930	0533	1840	0609	1744	0649	1653	0728	1628
04	0745	1640	0724	1720	0639	1800	0542	1840	0453	1917	0423	1949	0428	1956	0458	1929	0534	1838	0610	1742	0651	1652	0729	1627
05	0745	1641	0723	1721	0637	1802	0540	1841	0451	1919	0423	1950	0429	1956	0459	1928	0536	1836	0611	1740	0652	1650	0730	1627
06	0745	1642	0721	1723	0636	1803	0538	1843	0450	1920	0423	1951	0429	1956	0500	1926	0537	1834	0613	1738	0654	1649	0731	1627
07	0745	1643	0720	1724	0634	1804	0537	1844	0449	1921	0422	1952	0430	1955	0501	1925	0538	1833	0614	1736	0655	1648	0732	1627
08	0745	1644	0719	1726	0632	1806	0535	1845	0447	1922	0422	1952	0431	1955	0502	1923	0539	1831	0615	1734	0656	1647	0733	1627
09	0745	1646	0718	1727	0630	1807	0533	1846	0446	1923	0422	1953	0432	1954	0504	1922	0540	1829	0616	1733	0658	1645	0734	1627
10	0744	1647	0716	1729	0628	1808	0531	1848	0445	1925	0422	1953	0432	1954	0505	1921	0541	1827	0618	1731	0659	1644	0735	1627
11	0744	1648	0715	1730	0627	1809	0529	1849	0443	1926	0422	1954	0433	1953	0506	1919	0543	1825	0619	1729	0700	1643	0736	1627
12	0743	1649	0713	1731	0625	1811	0528	1850	0442	1927	0421	1954	0434	1953	0507	1917	0544	1823	0620	1727	0702	1642	0737	1627
13	0743	1650	0712	1733	0623	1812	0526	1851	0441	1928	0421	1955	0435	1952	0508	1916	0545	1821	0621	1726	0703	1641	0737	1627
14	0743	1651	0710	1734	0621	1813	0524	1853	0440	1929	0421	1955	0436	1951	0510	1914	0546	1819	0623	1724	0704	1640	0738	1627
15	0742	1653	0709	1736	0619	1815	0522	1854	0439	1930	0421	1956	0437	1951	0511	1913	0547	1817	0624	1722	0706	1639	0739	1628
16	0742	1654	0707	1737	0617	1816	0521	1855	0438	1931	0421	1956	0438	1950	0512	1911	0548	1816	0625	1720	0707	1638	0740	1628
17	0741	1655	0706	1738	0615	1817	0519	1856	0437	1933	0421	1956	0439	1949	0513	1910	0550	1814	0627	1719	0708	1637	0740	1628
18	0740	1657	0704	1740	0614	1819	0517	1858	0436	1934	0422	1957	0440	1948	0514	1908	0551	1812	0628	1717	0710	1636	0741	1629
19	0740	1658	0703	1741	0612	1820	0516	1859	0435	1935	0422	1957	0441	1947	0515	1906	0552	1810	0629	1715	0711	1635	0741	1629
20	0739	1659	0701	1743	0610	1821	0514	1900	0434	1936	0422	1957	0442	1946	0517	1905	0553	1808	0631	1714	0712	1635	0742	1630
21	0738	1700	0700	1744	0608	1822	0512	1901	0433	1937	0422	1957	0443	1945	0518	1903	0554	1806	0632	1712	0714	1634	0743	1630
22	0737	1702	0658	1745	0606	1824	0511	1903	0432	1938	0422	1958	0444	1944	0519	1901	0556	1804	0633	1711	0715	1633	0743	1631
23	0737	1703	0656	1747	0604	1825	0509	1904	0431	1939	0423	1958	0445	1943	0520	1900	0557	1802	0635	1709	0716	1632	0743	1631
24	0736	1705	0655	1748	0602	1826	0508	1905	0430	1940	0423	1958	0446	1942	0521	1858	0558	1800	0636	1707	0717	1632	0744	1632
25	0735	1706	0653	1750	0601	1827	0506	1906	0429	1941	0423	1958	0447	1941	0522	1856	0559	1759	0637	1706	0719	1631	0744	1632
26	0734	1707	0651	1751	0559	1829	0504	1907	0429	1942	0424	1958	0448	1940	0524	1854	0600	1757	0639	1704	0720	1630	0744	1633
27	0733	1709	0650	1752	0557	1830	0503	1909	0428	1943	0424	1958	0449	1939	0525	1853	0602	1755	0640	1703	0721	1630	0745	1634
28	0732	1710	0648	1754	0555	1831	0501	1910	0427	1944	0425	1958	0450	1938	0526	1851	0603	1753	0641	1701	0722	1629	0745	1635
29	0731	1711	0646	1755	0553	1832	0500	1911	0427	1945	0425	1958	0451	1937	0527	1849	0604	1751	0643	1700	0723	1629	0745	1635
30	0730	1713			0551	1834	0458	1912	0426	1945	0426	1957	0452	1936	0528	1847	0605	1749	0644	1658	0725	1629	0745	1636
31	0729	1714			0549	1835			0425	1946			0453	1934	0530	1845			0645	1657			0745	1637

Add one hour for daylight time, if and when in use.

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