CHAPTER 50  
AIRCRAFT

NICC is the sole source for large transport aircraft holding 14 CFR Part 121 Certificates and for Type 1 and 2 Call-When-Needed (CWN) Helicopters.

Cooperator aircraft (State contracted, State owned, State managed National Guard aircraft, county, city, or other) may be used on federal fires under the following conditions:

- The pilot and aircraft have been approved in writing for the mission by either the FS or the Office of Aviation Services (OAS).
- There exists a written MOU (Memorandum of Understanding), Interagency Agreement, or other document that authorizes use and payment for the mission.
- The cooperator aircraft will be operated within limitations specified in the written approval.
- The cooperator aircraft will be used only in situations where federal aircraft are not reasonably available.
- The cooperator aircraft will be released when federal aircraft become reasonably available.
- Use on federal incidents of cooperator-owned aircraft prior to exhausting contracted resources must involve a “significant and imminent threat to life or property.”
- Use the Cooperator Aircraft Use Validation Worksheet to document the justification for cooperator aircraft utilization: https://www.nifc.gov/nicc/logistics/coord_forms.htm

Aircraft Mobilization

When a Geographic Area has depleted local and available aircraft resources, request(s) will be placed with NICC. Documentation of special needs, threats or specific reporting instructions are critical for the proper and timely processing of each request. Aircraft assigned will become the receiving Area’s resource until released or reallocated by the NICC. The following selection factors will be used when ordering aircraft:

- Initial Attack vs. Large Fire Support.
- Timeliness.
- Cost effectiveness.
- Performance specifications for density/high altitude operations.
- Airtankers: Loaded or empty (two-hour maximum flight when loaded, except for the VLATS).
- Special applications such as special-use flights, bucket vs. tanked, tundra pads, float, etc.
- The following terminology will be used when requesting aircraft through NICC:
• Knots (kts.) will be the standard term used to reference airspeed.

• VORs (Very High Frequency Omni-directional Range) will be used to reference direction.

• Latitude and longitude must be provided in Degrees Decimal Minutes (DDM), utilizing GPS Datum WGS84 degrees and minutes.

• Aircraft registration numbers will be used when referencing helicopters, lead planes, and air attack aircraft. Airtankers and SEATs will be referenced by the airtanker number; e.g., T-40.

**Initial Attack Load – Smoke Jumpers**

When smokejumpers are needed jump-ready for initial attack with aircraft, they are to be requested in IROC as “Load, Smokejumper, Initial Attack” on an Aircraft request. All Initial Attack Orders will be honored when smokejumpers are available.

Specifying the delivery system is not permitted. The sending unit will fill the request with a roster in IROC or by forwarding a manifest form, with name and agency identification, through the established ordering channels. This information can be acquired after the smokejumper aircraft is airborne. Any intent to retain Smokejumpers which have not been utilized as an IA load will be negotiated between the sending and receiving smokejumper base in concurrence with the NICC and the GACCs. GACCs pre-positioning smokejumpers when multiple starts are occurring or predicted will 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 sending and receiving smokejumper bases in concurrence with the NICC and the GACCs.

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

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 NICC and the GACCs. If the aircraft is retained past the first operational period, it will be placed on an Aircraft request through established ordering channels.

BLM Initial attack aircraft may be launched within its current dispatch zone to new incidents after having been provided location, bearing, distance, and flight following frequency. All other pertinent information will be provided to aircrews while enroute.

**Aircraft Demobilization**

Flight Following will be performed on all Government or exclusive use contract aircraft being demobilized. NICC will release charter and CWN aircraft to the vendor without flight following provided no Government personnel or cargo is on board. All aircraft release information will be
Flight Management Procedures

National Flight Following Frequency (168.6500 MHz)

The National Flight Following Frequency is used to monitor interagency and contract aircraft. All aircraft on point-to-point or mission flights should establish/terminate flight following, and confirm Automated Flight Following (AFF) on the National Flight Following frequency. All dispatch centers/offices will monitor the National Flight Following frequency at all times. A CTCSS tone of 110.9 must be placed on the transmitter and receiver of the National Flight Following frequency. The National Flight Following frequency is to be used for flight following, dispatch, or redirection of aircraft. No other use is authorized.

Types of flights:

Point-to-Point

A “Point-to-point” flight is one that originates at one developed airport or permanent helibase and flies directly to another developed airport or permanent helibase with the sole purpose of transporting personnel or cargo (this term does not apply to flights with a scheduled air carrier on a seat fare basis). These types of flights are often referred to as “administrative” flights and only require the aircraft and pilot to be carded and approved for point-to-point flight. A point-to-point flight is conducted higher than 500 feet above ground level (AGL).

Mission Flights

Mission flights are defined as flights not meeting the definition of point-to-point flight. A mission flight requires work to be performed in the air (retardant or water delivery, fire reconnaissance, smokejumper delivery), or through a combination of ground and aerial work (delivery of personnel and/or cargo from helibases to helispots or unimproved landing sites, rappelling or cargo let-down, horse herding).

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 will be used. The pilot shall 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 dispatch with an estimated time of departure, estimated time enroute and close out with dispatch once the aircraft is on the ground to accomplish resource tracking.
Agency Flight Plans and Flight Following

Agency flight plans are the responsibility of the pilot, to be distributed through originating dispatch office and are documented on an Aircraft Flight Request/Schedule. 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. If the aircraft and flight following office have AFF capability, it shall be utilized. Periodic radio transmissions are acceptable when utilizing AFF. (See AFF procedures below for more information). Radio Check-in/Check-out 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. All aircraft operating on Agency flight plans shall monitor Air Guard. Helicopters conducting Mission Flights shall check-in prior to and immediately after each takeoff/landing per the NWCG Standards for Helicopter Operations: https://www.nwcg.gov/publications/510

For point-to-point flights, AFF flight following may be used as well. The pilot or flight manager will, as a minimum, contact dispatch prior to the flight with an estimated time of departure, estimated time enroute, souls and fuel on board and will close out with dispatch once the aircraft is on the ground. Flight following is the responsibility of the originating dispatch office and will remain so until transferred through a documented, positive handoff. The flight following dispatch office shall be continually staffed while an aircraft is airborne. 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.

Resource Tracking

NICC will resource track, through the use of an Aircraft Flight Request/Schedule, all aircraft crossing Geographic Area boundaries, which have been ordered through NICC on:

- Aircraft Orders
- Flight Requests

When mobilizing Large and Very Large Airtankers utilizing initial attack neighborhood/border agreements it is not necessary to forward an Aircraft Flight Request/Schedule to NICC. GACCs should notify the NICC via telephone of the resource commitment.

Responsibilities

SENDING UNIT – The Sending Unit is the dispatch unit which sends the aircraft from the vendor or Government aviation unit.

RECEIVING UNIT – The Receiving Unit is the dispatch unit which is receiving the resource.
Responsibilities of the Sending Unit:

- Obtain actual time of departure (ATD) and estimated time of arrival (ETA) from the initial departure airport from pilot/vendor.
- Relay the ATD, ETA, and method of Flight Following (agency or FAA) to the Sending Unit’s GACC via established ordering channels.
- Notify the GACC of any route changes, and of any delay or advances of a flight plan exceeding thirty (30) minutes.
- Assist with search procedures for overdue aircraft. Utilize agency aircraft search/rescue guides, as appropriate.
- On any flight requiring stops enroute to a destination, instruct the Pilot-In-Command or Flight Manager to contact NICC at (800) 994-6312. Aircraft support vehicles should contact NICC at fuel stops.

Responsibilities of Sending GACC:

- Sending GACC will relay the Aircraft Flight Request/Schedule to NICC via email or fax.
- Notify NICC of any route changes, and of any delay or advances of a flight plan exceeding thirty (30) minutes.
- Assist with search procedures for overdue aircraft. Utilize agency aircraft search and rescue guides, as appropriate.

Responsibilities of NICC:

- Relay Aircraft Flight Request/Schedule to the receiving GACC by email or fax.
- Notify receiving GACC of any route changes, and of any delay or advances of a flight plan exceeding thirty (30) minutes.
- Resource track aircraft to specified destinations
- Monitor flight plans for additional utilization.

Responsibilities of Receiving GACC:

- Relay Aircraft Flight Request/Schedule to the Receiving Unit by email or fax.
- Notify Receiving Unit of known delays/advances of a flight plan exceeding thirty minutes.
- Confirm arrival of all aircraft to NICC by telephone; notify NICC of any aircraft overdue by more than thirty minutes.
- Assist with search procedures for overdue aircraft. Utilize agency aircraft search and rescue guides, as appropriate.
Responsibilities of Receiving Unit:

- Confirm arrival of all aircraft by telephone to Receiving GACC.
- Notify Receiving GACC of any delays of a flight plan exceeding thirty minutes; notify receiving GACC of any aircraft overdue by more than thirty minutes.
- Initiate/assist with search procedures for overdue aircraft. Utilize agency aircraft search and rescue guides, as appropriate.

Automated Flight Following (AFF) Requirements and Procedures:

AFF reduces the requirement to “check in” via radio every 15 minutes and provides the dispatcher with a wide range of information on the flight, airspace, and other data that may be pertinent to the flight. This reduces pilot workload, clears congested radio frequencies, and provides the dispatcher with much greater detail and accuracy on aircraft location and flight history.

Requirements to Utilize AFF:

- Automated flight following does not reduce or eliminate the requirement for aircraft on mission flights to have FM radio capability, and for the aircraft to be monitoring appropriate radio frequencies during the flight.
- Procedures for flight requests, ordering aircraft, requirement for a Flight Manager, etc., are the same as radio check-in procedures.
- The aircraft must be equipped with the necessary hardware (transmitter and antenna).
- The dispatch office responsible for the flight following must have a computer connected to the Internet immediately available to them in the dispatch office. Dispatch office(s) responsible for flight following shall be staffed for the duration of the flight.
- Training: The flight following dispatcher must have a working knowledge of the automated flight following program (Web tracker) and must have a current username and password for the automated flight following system.

Procedures for Utilizing AFF:

- When an aircraft is ordered, or a user requests flight following from a dispatch office, and the above “Requirements to Utilize AFF” are met automated flight following shall be utilized.
- The dispatch office will log on to the automated flight following web site, verify that the aircraft icon is visible on the screen, and be able to quickly monitor this page at anytime during the flight.
- The dispatch office will provide the pilot with FM frequencies and tones that will be monitored for the duration of the flight.
- When aircraft is initially airborne, and outside of sterile cockpit environment, the pilot will
contact the dispatch office via radio stating call sign, departure location, number on board, fuel on board, ETE, destination, confirmation of AFF location. This is required to positively verify that both the aircraft and the dispatch office are utilizing AFF, radios are operational, and that the dispatcher can “see” the aircraft on the computer screen. If there is a problem at this point, change to radio 15-minute check-in procedures until the problem is resolved.

- If radio contact cannot be established the pilot will abort the mission and return to the airport/helibase.
- If there is a deviation from the planned flight route, the pilot will contact the dispatch office via radio with the changed information.
- The dispatch office will keep the AFF system running on a computer for the entire flight and will set a 15-minute timer and document the location for the duration of the flight.
- If the aircraft icon turns RED, it means the signal has been lost. Immediately attempt contact with the aircraft via radio and follow normal lost communication, missing aircraft, or downed aircraft procedures as appropriate. If radio contact is made after a lost signal, flight may continue utilizing 15-minute radio check-ins for flight following. (During tactical operations below 500’ a periodic red indication is normal and does not necessitate an ‘immediate’ contact especially if flight following has been established with the incident. This should be addressed during the pre-flight briefing.)
- When the aircraft has completed the flight and landed, the pilot or flight manager (passenger, observer, Flight Manager, ATGS, etc.) shall contact the dispatch office via radio or telephone informing them that they are on the ground.

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

**Airtankers**

Airtankers are National Resources and their primary mission is initial attack. The NICC will prioritize and allocate federal airtankers by positioning them in areas of current or predicted high wildfire danger or activity. Geographic Areas managing these aircraft will make them available for wildland fire assignments when ordered by NICC. This will be accomplished by ensuring that all support functions (i.e., Airtanker Bases and Local Dispatch Centers) that are required for the mobilization of national assets (i.e. Airtankers, Lead Planes, ASMs, and Type 1 and 2 Helicopters) are staffed and maintained to support mobilizations. When a Geographic Area has depleted available VLAT or Large Airtanker (Type 1 or 2) resources, request(s) will be placed with 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.
There are five types of airtankers:

<table>
<thead>
<tr>
<th>Type</th>
<th>Capacity (Minimum)</th>
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<tbody>
<tr>
<td>VLAT</td>
<td>8,000 gallons or more</td>
</tr>
<tr>
<td>1</td>
<td>3,000 to 4,999 gallons</td>
</tr>
<tr>
<td>2</td>
<td>1,800 to 2,999 gallons</td>
</tr>
<tr>
<td>3</td>
<td>800 to 1,799 gallons</td>
</tr>
<tr>
<td>4</td>
<td>Up to 799 gallons</td>
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</tbody>
</table>

**Airtanker Management**

To ensure consistent utilization, rotation and management of the national airtanker fleet, please refer to Interagency Standards for Fire and Fire Aviation Operations Chapter 16, Aviation Operations and Resources located at: [https://www.nifc.gov/policies/pol_ref_redbook.html](https://www.nifc.gov/policies/pol_ref_redbook.html)


**Airtanker Use in Optional and Post Season Periods:**

Post Season and Optional Use airtanker activations are processed by the Contracting Officer (CO), via a signed modification.

The following process is used to activate airtankers during the Post Season and Optional Use periods:

- The requesting GACC will place request(s) for airtankers with NICC.
- NICC will notify the National Fixed Wing Coordinator (NFWC) or designated representative of request(s).
- The NFWC or designated representative and NICC will determine the availability of airtankers and will notify the national airtanker inspector(s), if needed. The CO or designated representative will notify the Contracting Officer’s Representative (COR) of the contract item to be activated.
- NICC will notify the GACC of the airtanker activation.
- NICC will request the airtanker from the appropriate vendor once approved by the CO.
Modular Airborne Firefighting Systems (MAFFS)

Objectives
MAFFS provides emergency capability to supplement commercial airtankers on wildland fires.

Policy
MAFFS are National Resources and are used as a reinforcement measure when contract airtankers are committed or not readily available. MAFFS will be made available to assist foreign governments when requested through the Department of State or other diplomatic Memorandum of Understanding (MOU).

Responsibility
Geographic Areas are responsible for ascertaining all suitable commercial airtankers are assigned to wildland fires or committed to initial attack before placing a request for a MAFFS Mission to NIFC. For additional information, see the MAFFS Operating Plan.

NIFC Responsibility
NIFC is responsible for ascertaining that all suitable commercial contract airtankers nationally are committed to wildland fires, initial attack, or cannot meet timeframes of requesting units. When this occurs, the Duty Coordinator will notify the FS Assistant Director for Operations, NIFC. The FS Assistant Director for Operations or his/her acting, NIFC, or in his/her absence, the FS Assistant Director for Aviation, Fire and Aviation Management Washington Office, is responsible for initiating a MAFFS mission. Once approval is given, the NICC Manager activates the request through proper DOD channels. After the initial contact has been made, the NICC will submit a Request for Assistance (RFA) to the DOD Liaison at NIFC. The Governors of California, and Wyoming, may activate their respective Air National Guard Units having MAFFS equipment and qualified crews for State-controlled fires. Approval for use of MAFFS equipment must be obtained from the FS Assistant Director for Operations, NIFC, prior to this activation.

When MAFFS are activated by a governor, the FS Regional Office for that State will assign an accounting code for the incident.

Ordering Criteria
FS domestic requests will be placed through established ordering channels to NICC.

NICC will place a Request for Assistance (RFA) to the Region X Defense Coordinating Officer (DCO).

The requesting Geographic Area needs to order the following support:

- One each MAFFS Liaison Officer (MLO aka MAFF) and one each MLO trainee.
- One each Airbase Radio Kit (NFES 4660).
• One each MAFFS Communications Specialist (THSP). One each Assistant MAFFS Liaison Officer.
• One each MAFFS Airtanker Base Manager (MABM) and one each MABM trainee
• Logistics, Finance, and Information personnel.
MAFFS Operations must also include a MAFFs qualified Lead Plane.
The Receiving Unit must be prepared to provide administrative support (procurement, motel rooms, phones, office space, clerical and timekeeping support, transportation) to accommodate as many as twenty-six people per two aircraft. Refer to the current MAFFS Operating Plan for specifics.

Type 3 Multi-Engine Water Scoopers
Water scoopers are National Resources and their primary mission is initial attack operations. The NICC will prioritize and allocate federal water scoopers by positioning them in areas where they can be tactically effective and where current or predicted high wildfire danger or activity is occurring. Geographic areas managing these aircraft will make them available for wildland fire assignments when ordered by NICC.

Single Engine Airtankers (SEATs)
Federal and/or State contracted SEATs are managed under either an Exclusive Use, On-Call, or CWN contract. A list of DOI Nationally funded SEATs is maintained and information can be requested through the National SEAT Coordinator. The national contract SEAT module includes the option for a support vehicle with batch mixing capability for wet and dry retardant. They are available for Interagency use and will be requested through established ordering channels. A SEAT can be managed by a SEMG or an ATBM. For a CWN or On-Call. If the request is filled with a DOI On-Call SEAT, a SEMG or ATBM must be identified with contact information and documented in the Special Needs block before NICC assigns a SEAT.

Orders for SEATs placed to NICC are coordinated with the National SEAT Coordinator. Local Units or Geographic Area Coordination Centers hiring or releasing SEATs will notify the National SEAT Coordinator regardless of jurisdiction. Consistent with the DOI authorization (see the BLM National Aviation Plan), DOI Nationally funded SEATs will be managed as DOI National shared resources. As National assets, these SEATs can and will be moved to areas of greatest need. Geographic Areas and Fire Staff on an Interagency basis will provide direction to the Dispatch system on the mobilization and demobilization of SEATs to meet existing or forecasted fire loads within their jurisdiction. Nationally, when competition for SEATs exists, NMAC will provide SEAT allocation direction to NICC based on intelligence developed by the National Seat Coordinator. The National SEAT Coordinator position is responsible for coordinating the allocation and reallocation of SEATs Nationwide as well as maintaining current status, location and utilization of Federal and State contracted SEATs throughout the Nation. DOI Nationally funded SEATs will have their IROC status set as available nationally. When
assigned to an incident, DOI Nationally funded SEATs will be released back to the GACC/Hosting unit at the end of each shift and shown as available “National” in IROC. Mobilization for incident response will occur via resource order; however, once a decision to reallocate a DOI Nationally funded SEAT to another GACC is made, the receiving GACC will place a request for the mobilization, and the resource item will be transferred after mobilization is complete.


The National SEAT Coordinator can be reached at 208-387-5419, or via email at blm_fc_seat@blm.gov.

**Leadplanes (LP) and Aerial Supervision Modules (ASM)**

Leadplanes and ASMs are National Resources. Areas administering these aircraft will make them available for wildland fire assignments when ordered by NICC. Requests for lead planes may be filled with an ASM.

The ASM is a fixed wing platform that utilizes two (2) crew members to perform the functions of traditional air attack and low-level lead operations. The ASM requires both crew members to be trained to work as a team, utilizing Crew Resource Management (CRM) skills and techniques to enhance safety, efficiency, and effectiveness. For a list of all Leadplanes/Aerial Supervision Modules, refer to the following web site:

https://www.nifc.gov/nicc/logistics/aviation/aviation.htm

**Smokejumper Aircraft**

For a list of all Smokejumper Aircraft, refer to the following web site:

https://www.nifc.gov/nicc/logistics/aviation/aviation.htm

**Air Tactical Aircraft**

Air Tactical aircraft are on agency Exclusive Use Contracts and/or Call When Needed (CWN) Agreements. They are available for interagency use and will be requested through established ordering channels. Federal agencies have developed Air Tactical specific contracts and agreements that add performance capabilities and radio configurations specific to the role of aerial supervision.

To ensure consistent utilization, rotation and management of the exclusive use ATGS fleet, please refer to Interagency Standards for Fire and Aviation Operations Chapter 16, Aviation Operations and Resources located at https://www.nifc.gov/policies/pol_ref_redbook.html.
Helicopters

Call-When-Needed (CWN)

- Type 3 helicopters are ordered through normal ordering channels and are dispatched either locally, or through Geographic Area Coordination Centers.
- With the exception of Alaska, all Type 1 and 2 helicopters are National Resources and will be dispatched by NICC.
- There are two categories of helicopters:
  - Limited: No government personnel/passenger or internal cargo transport, lift only. See National Standards for Helicopter Operations, PMS 510 for additional information.
  - Standard: Government personnel/passenger and cargo hauling.
- When processing requests for helicopters, NICC will inform the requesting GACC of the contract type of the assigned resource: Exclusive Use or CWN. Exclusive Use Contract helicopters are mobilized complete with an assigned module. If the request is filled with a CWN helicopter, the requesting Area must provide a module. A helicopter manager (HMGB) must be identified with contact information and documented in the Special Needs block before NICC assigns a CWN helicopter, with the exception of Alaska, due to the extended mobilization time of the aircraft from the Lower 48 to Alaska. CWN helicopter managers and/or modules will meet with their assigned helicopter off-site from the incident prior to performing work. The specific reporting location should be identified on the Resource Order, such as a Fixed Base Operator (FBO) or other easily located site. GACCs will obtain approval from NICC prior to reassigning Type 1 or 2 Helicopters to another incident.
- Type 3 helicopters are ordered through normal ordering channels and are dispatched either locally, or through Geographic Area Coordination Centers.

Exclusive Use

- All FS Exclusive Use Type 1 and 2 Helicopters are contracted by Incident Support Branch (ISB) located at NIFC.
- All Exclusive Use Contract Helicopters for DOI Agencies are solicited, inspected, and contracted by DOI AQD and OAS.
- Exclusive Use Contract Helicopters are dispatched locally by the Administrative Unit.
- When ordering helicopters with rappel or short haul capability, request the aircraft as normal and define the added capability in the “Special Needs” block of the Resource Order.

Periodically, Forest Service Type 1 and Type 2 Exclusive Use Helicopters not within their Mandatory Availability Period (MAP) are hired under their Exclusive Use Contract for optional use periods for incidents or projects. A modification to the Exclusive Use Contract is required for
the duration of the incident assignment. The Exclusive Use Contract designates the COR and the Exclusive Use Helicopter Manager. If the designated FS Exclusive Use Helicopter Manager is not immediately available, the requesting Geographic Area will assign an available Exclusive Use Helicopter Manager to the helicopter until the designated Exclusive Use Helicopter Manager arrives at the incident. The designated Helicopter Manager will then manage the helicopter thereafter. The COR will be notified that the Exclusive Use Helicopter is being dispatched.

The BLM Type 1 Helicopter Program is currently a pilot project under evaluation and direction of the BLM National Office. This aircraft comes with a compliment of crewmembers and flight mission capabilities that are unique to this category of aircraft.

The BLM Type 1 Helicopter’s primary mission is initial attack. While most effective at providing rapid initial response, the crew is well equipped to respond to extended attack incidents and critical need missions on large fires. In order to retain this helicopter and crew beyond initial attack for extended attack incidents, a request will be made to the GACC. Extended attack incidents that utilize the crew to fill critical positions, should immediately order replacement personnel for those positions in case the aircraft and crew are reassigned.

**Large Transport Aircraft**

Large transport aircraft are National Resources and will be requested through NICC.

- **Scheduling:** Large transport aircraft arranged by NICC are requested on a per mission basis. Flight Following ATD/ETE will be relayed by the NICC Aircraft Desk for each flight leg.

- **Requests for Large Transport:** When requesting a large transport aircraft, the following information is required:
  - Number of passengers and/or cargo weight per destination and combined total weight for the flight.
  - Pick-up point at jetport and time passengers and/or cargo are available to load. NICC requires 48 hour lead time to plan and schedule aircraft for demobilization flights.
  - Pick-up point at the jetport is the Fixed Base Operator (FBO) or gate at the airport terminal where the aircraft will park.
  - Passengers must be weighed and manifested prior to boarding the aircraft.
  - Government or contractor support available at each airport, including contact person and telephone number.

All personnel listed on the manifest and flight crew members should be provided at least one sack lunch.

**Infrared (IR) Support to Fire Operations**

Aircraft systems configured with infrared (IR) camera systems are available from agencies and private sector to provide support to wildland fire operations in three mission areas:
Detection: Use IR imagery to detect and map locations of new fires, typically following a lightning storm.

Large Fire Perimeter Mapping: Use IR imagery to map the heat perimeter of large fires, typically the role of National Infrared Operations (NIROPS).

Tactical Incident Awareness and Assessment (IAA): Use IR imagery to provide near real-time situational awareness, spot fire detection, over watch of ground operations, and map the heat perimeter of smaller fires or active portions of large fires. Can be conducted during the day or night.

Infrared camera systems can be categorized into two primary categories: 1) Line Scanner / Step-stare camera systems, or 2) gimbal mounted electro-optical / infrared (EO/IR) camera ball. Line scanners and step-stare systems can quickly scan and map large fires and are best used when the fire is actively burning with open flame. EO/IR camera balls are best used to provide over watch of a specific area and are more sensitive to detecting smoldering heat sources, however scan volume to map large fires is typically lower than line scanners or step-stare systems.

Aircraft assigned to NIROPS are predominantly equipped with line scanners or step-stare camera systems. NIROPS will consists of agency as well as contracted aircraft. NIROPS aircraft are National Resources. To order, use the IR Online Scanner Request Form on the NIROPS website no later than 1530 hours Mountain Time https://fsapps.nwcg.gov/nirops/users/login.

Aircraft equipped with gimbal mounted EO/IR camera balls are typically better suited to detection or tactical IAA missions. Aircraft from federal, state, National Guard, and contractors are available. Ordering procedures varies depending on the aircraft. To order, contact the ordering GACC to discuss options.

The following are some guidelines to help select the right tool for the task:

Identify what the IR imagery is needed for, what information it is intended to provide, the desired products, and time of day.

If the fire is actively burning and a once per 24 hour perimeter map is sufficient, submit request for NIROPS.

If the fire is experiencing significant spread and additional day-time mapping and/or over watch is needed to monitor fire progression, consider requesting an aircraft equipped with thermal sensors for day-time flights in addition to nightly NIROPS.

If the fire is no longer actively spreading and IR imagery is needed to inform mop-up decisions, consider requesting an aircraft equipped with a gimbal mounted camera ball instead of NIROPS.

Following a lightning storm consider requesting an aircraft equipped with gimbal mounted camera ball to conduct a detection flight over the lightning affected area.
Most crewed aircraft systems are only capable of providing “periodic” over watch of an incident, limited by fuel cycle. For more “persistent” coverage of an incident, consider requesting a large UAS capable of providing 12-18 hours of flight time per day.

Visit the Fire Imaging Technologies User Guide for more detailed information:

**Unmanned Aircraft Systems (UAS)**

Incident UAS missions may be conducted on a small scale by agency owned UAS and an agency crew or on a larger scale by vendor owned and operated UAS with agency support.

Agency owned UAS are ordered as standard overhead with the UAS defined in the Special Needs block in IROC.

Vendor owned UAS are ordered as an Aircraft number in IROC.

The ordering unit can contact the UAS Fire Coordinator at 208-387-5335 with ordering questions. The Coordinator can help the local unit determine needs and order specifics.

Please see https://uas.nifc.gov for further information.

**Temporary Flight Restrictions, FAR 91.137 (TFR)**

Temporary airspace restrictions will be established when incident related aviation activities present potential conflict with other aviation activities. The FAA requires that latitude/longitude information for TFRs (Temporary Flight Restrictions) must be provided in degrees, minutes, and seconds, including reference to north latitude and west longitude. If seconds’ information is not available, add two zeroes to the description. Do not use spaces, commas, or other symbols in the description. Example: ddmmssN/ddmmssW or 450700N/1175030W. The corner points should be listed in a clockwise sequence around the requested TFR to avoid “bow tie” depictions. The NWCG Standards for Airspace Coordination, located at https://www.nwcg.gov/publications/520 further describes how flight restrictions are requested and implemented.

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 “Military Training Routes.” Each dispatch office should download a current edition of the AP/1B. 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 local unit aviation hazard maps. Further direction may be obtained in the NWCG Standards for Airspace Coordination.

**Airspace Conflicts**

Consult the NWCG Standards for Airspace Coordination at:
https://www.nwcg.gov/publications/520
The Aircraft Conflict Initial Report can be accessed at [https://www.nwcg.gov/tags/iasc](https://www.nwcg.gov/tags/iasc)

Aviation personnel have a responsibility to identify and notify the Domestic Event Network (DEN) and report conflicts and incidents through the Interagency SAFECOM (Safety Communication) System to assist in the resolution of airspace conflicts. Notification to the DEN should be timely and by phone at: 504-422-4423 /4424/ 4425/. When a conflict or incident occurs, it may indicate a significant aviation safety hazard. Conflicts may include Near Mid Air Collisions (NMAC), TFR intrusions, and FTA communication non-compliance. Further guidance is available in the NWCG Standards for Airspace Coordination.

**FAA Temporary Control Tower Operations**

Geographic Areas within the FAA’s Western Service Area (which includes the following states: 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 Order. A lead time of 48 hours is desirable when ordering. Ordering procedures are outlined within the current agreement. The GACCs do not need to forward the request to 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 GACC to the FAA’s Regional Operations Center (ROC). There is a helpful checklist found in NWCG Standards for Airspace Coordination, PMS 520 that aids in requesting a Temporary Tower.

**Dedicated Radio Frequencies**

All documents containing USDA Forest Service (FS) and/or Department of Interior (DOI) frequencies must have the following statement on the top and bottom of each page containing frequencies, “Controlled Unclassified Information/Basic”. This requirement is in accordance with direction from the Washington Office Frequency Managers for both Departments.

**FM, VHF, and UHF Frequencies:**

NIICD issues dedicated FM frequencies in conjunction with communication equipment assigned to incidents. NIICD will order additional FM frequencies from DOI and FS, Washington Office, as conditions warrant. **To ensure proper frequency coordination, the ordering office must include the Latitude and Longitude of the incident on the resource order.**

**AM Frequencies:**

Initial attack AM air-to-air frequencies will be assigned by the NIICD Communications Duty Officer (CDO) after annual coordination with the FAA. All available AM assignments will be published at the beginning of the fire season and will be available for use by the dispatch zones.
When the tertiary assignment (if applicable) is used the NIICD CDO will be notified by phone or e-mail. VHF AM assignments are used for air-to-air communications and are authorized only within the zone to which assigned. **IA assignments are not dedicated to project fires.**

To utilize the initial attack AM assignments to their fullest capabilities they should only be used on TFRs for the initial burning period, and after that a dedicated AM frequency should be ordered from the CDO through IROC.

**FM air-to-ground frequencies:**

FM air-to-ground frequencies will be facilitated and coordinated by the NIICD CDO in cooperation with the agency frequency managers with the intent to create permanent assignments. Both AM and FM assignments will be used on an interagency basis and master records of the assignments are maintained by the NIICD CDO. Updated frequency information for initial attack air to air, and air to ground is coordinated annually with the GACCs.

Requests for the use of dedicated Air-to-Air and Air-to-Ground frequencies will be made through established ordering channels from the incident host GACC, directly to the NIICD, followed by a call placed to the CDO. The CDO coordinates all National Cache FS and DOI frequencies as well as any additional frequencies released by other agencies for wildland fire support. Frequencies are ordered on an Aircraft “A” request.