AIRCRAFT DISPATCHER
REFERENCE GUIDE

Twelve Standard Aviation Questions That Shout "Watch Out"

1. Is the flight necessary?
2. Who is in charge?
3. Are all hazards identified and have you made them known?
4. Should you stop the operation on the flight due to change in conditions?
   a. Communications
   b. Weather
   c. Confusion
   d. Turbulence
   e. Personnel
   f. Conflicting Priorities
5. Is there a better way to do it?
6. Are you driven by an overwhelming sense of urgency?
7. Can you justify your action?
8. Are there other aircraft in the area?
9. Do you have an escape route?
10. Are any rules being broken?
11. Are communications getting tense?
12. Are you deviating from the assigned operation of flight?

Anyone can refuse or curtail a flight when an unsafe condition may exist. Never let undue pressure (expressed or implied) influence your judgment or decisions.

Avoid Mistakes, Don't Hurry

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INTRODUCTION

This reference guide provides decision charts, checklists, direction, and points of contact to assist personnel in performing the responsibilities of the Aircraft Dispatcher.

It is designed for personnel that need a quick reference for outlining non-routine procedures or who are not assigned in the Aircraft Dispatcher role in their day-to-day job.

Use this reference guide for assistance with order type determination, processing requirements and procedures, dispatch routing channels, followup, and closeout of orders.

Processing Aviation-Related Orders
Choosing the Correct Form

IF the mission request is.....	**AND** the following resource is requested.....	**AND** it will be filled with.....	**THEN**, process the order on.....
Administrative			Flight Request/Schedule
Tactical	Airtanker		ROSS Aircraft Resource Order
	SEAT	Exclusive Use	ROSS Aircraft Resource Order
		CWN	ROSS Aircraft Resource Order **AND** O/H Resource Order for manager and/or Supply/Equipment R/O (for retardant & water tender)
	Air Attack		ROSS Aircraft Resource Order
	Lead Plane		
	Helicopter	Exclusive Use	
		CWN	ROSS Aircraft Resource Order **AND** O/H Resource Order for manager and crew members
	Light fixed-wing		ROSS Aircraft Resource Order
	Smokejumper Aircraft (a/c ONLY)		
	IA Smokejumper		ROSS Overhead Resource Order
	Infrared		ROSS Aircraft Resource Order **AND** Infrared Aircraft Scanner Request
	TFR		ROSS Aircraft Resource Order
	Emergency Aircraft Radio Frequencies		
	Temporary FAA Tower		
	Aerial Ignition	Exclusive Use	
		CWN	A/C Resource Order **AND** O/H Resource Order (for Mgr., module or PSD operator) **AND** Equipment R/O (for helitorch or PSD) **AND** Supply R/O (for spheres or fuel)
	Air Attack Radio Kit		ROSS Equipment Resource Order

Aerial Supervision Requirements

Situation	Lead/ATCO/ASM1	REF	ATGS	REF
Airtanker not IA rated	Required	1		
MAFFS	Required	1		
Retardant drops in congested areas	Order	1	May use if No Lead/ATCO/ASM1	
Level 2 SEAT operating over an incident with more than 1 other tactical aircraft on scene	Required if No ATGS	1	Required if No Lead/ATCO/ASM1	1
Foreign Government Airtankers	Required if No ATGS	1	Required if No Lead/ATCO/ASM1	1
Retardant drops conducted earlier than 30 minutes prior to sunrise, or later than 30 minutes after sunset	Required if No ATGS	1,2	Required if No Lead/ATCO/ASM1	1,2
4 or more airtankers assigned	Order	1	Order	1
2 or more helicopters with 2 or more airtankers over an incident	Order	1	Order	1
Periods of marginal weather, poor visibility or turbulence	Order	1	Order	1
2 or more airtankers over an incident	Order	1	Required if no Lead/ATCO/ASM1	3
When requested by airtanker or ATGS	Required	1	Required	
Smokejumper or Paracargo aircraft with 2 or more airtankers over an incidents	Order if NO ATGS	1	Order if No Lead/ATCO/ASM1	1,4
Incident has 2 or more branches.			Order	1,4

Reference Information:

1 Interagency Lead Plane operations Guide and Interagency Air Tactical Group Supervisor Guide (NFES 1393).

2 Requires determination by ATGS or LEAD that visibility and safety factors are suitable and dispatch has been notified of the determination.

3 USFS FSM 5716.32.

4 Both the ILOG and ATGS Guide reference ordering and ATGS only for these missions. FSM 5716.32 classifies these missions as complies. An ATCO and/or HLCO should be ordered as appropriate in addition to the ATGS.

Required Tactical Aircraft Ordering Information

Incident Information	Air Tankers/SEATS/Helitanker Requests	Smokejumpers/Rapeller/ Helitack Requests
Legal description Is Lat/Long correct on order? Geographic location/Descriptive Location 2 VOR & DME on the order Type of air resources requested. Proper **air to air and air to ground frequencies** assigned? Order additional frequencies from GACC. Are Frequencies correct on order? Air to Ground Contact identified? Call signs, types and numbers of responding resources ETA of responding resources. Water sources Aerial hazard information to responding air resources. Power lines Towers Non incident aircraft Military Operational Areas (MOAs) Military Training Routes(MTRs) Elevation	Always order as "Air Tanker, Type 1 or 2" from closest ATB, then GACC. Always order a LP with an AT Enter Values at Risk in Special Needs: ○ Human Life: Entrapment ▪ Reinforce Escape Rt/Safety Zones ▪ Medivac, Highways, Rec. Areas ○ Property: Primary Residences ▪ Seasonal Residences ▪ Commercial ▪ Outbuildings ▪ Livestock ○ Natural Resources: T&E Species ▪ Wildlife Habitat ▪ Grazing Allotments Designated Critical Areas Reload Base Correct?	**Initial Attack Orders** Always order as "Load, Initial Attack" from closest base, then GACC. In Special Needs block, identify: ○ Estimated Size ○ Position on Slope ○ Aspect ○ # of individuals Needed **Smokejumper Booster** On an Overhead Resource Order. Individual overhead request numbers for each smokejumper.

Helicopters

Helicopter Module		Helicopter ordering information	Specialized Equipment
TYPE 1 STANDARD	**HELM + 4 HECM**	Exclusive use helicopters come with a module. The helicopter and module are ordered on an aircraft order. **If helicopter is going to be used for Initial Attack the HCWN must be Incident Commander Type 4 qualified.** For Federal incidents all Type 1 and Type 2 helicopters orders must go through GACC to NICC. NICC will not order a helicopter until they have a helicopter manager name and in some cases they may request the individual's travel information. Determine a merry up location for the helicopter and its manager or module. Airport near the incident works as excellent meeting location. **Never have helicopter report to the incident helibase without its manger or module**. Military helicopters are mobilized through NICC. Refer to **Chapter 70 of the Military Handbook for additional information.** When using State, County, and National Guard helicopters on your incident or incidents near your incident. Extra coordination needs to take place between dispatch offices, to ensure that aircraft have the proper radio frequencies and location of each other. Remember to use a National Guard helicopter on an incident that State's Governor has to declare an emergency.	Bucket Fuel truck Aerial ignition device GPS mapping/infrared equipment Longline Seeder Fertilizer
TYPE 1 LIMITED	**HELM ONLY**		
TYPE 2 STANDARD	**HELM + 3 HECM**		
TYPE 2 LIMITED	**HELM ONLY**		
TYPE 3 STANDARD	**HELM + 2 HECM**		
TYPE 3 LIMITED	**HELM ONLY**		

Helicopter Ordering Sequence

IF the following resource is requested.....	**AND** it is for....	**AND** it is....	**THEN** route the order to .....
Helicopter	Type I	Operating locally under timber sale contract	**GACC** for documentation **-Dispatch locally** BUT use only for I.A. on incidents within or adjacent to sale -Coordinate w/ sale COR and incident resources
	Type II	CWN	**GACC** to place order with NICC. (Must have helicopter manager's name and travel)
	Type III	Exclusive-use or agency-owned	**Helibase**, if available on unit OR **GACC**, if unavailable on unit
		CWN - Fire Use	**Directly to the vendor, IF** the helicopter's home base is located within or adjacent to the ordering unit. OR **GACC**, **IF** the helicopter's home base is **NOT** located within or adjacent to the ordering unit

Followup, Demobilization, Closeout
Checklist

- ☐ Confirm release of tactical air resources with incident.
- ☐ Check with local dispatch center manager, neighbors, and GACC for possible reassignment of resources prior to releasing to home unit.
- ☐ Dispatch center notification to GACC of Type I and Type II helicopters available for reassignment.
- ☐ Fax flight strip to GACC if leaving Geographical Area.
- ☐ GACC notification to the National Interagency Coordination Center of availability of Type I and Type II helicopters ready for reassignment/release.
- ☐ Relay ETAs of released aircraft through dispatch channels.
- ☐ Complete documentation and close out ROSS resource orders and/or aircraft request/schedule.
- ☐ Confirm flight following procedures for aircraft prior to release.
- ☐ Check regional mobilization guide for geographical procedures.

SAFECOM Submission Checklist

PURPOSE OF THE FORMS:

- ☐ To report any damage or injury less than "accident" criteria and any condition, act, observance, act, maintenance problem, or circumstance which has potential to cause an aviation related accident.
- ☐ To document all aviation hazards, incidents, incidents with potential, or accidents.
- ☐ To perform trend analyses for short- or long-term changes in policy and procedures, identify areas needing training, etc.
- ☐ To establish accountability on the part of all aviation mission participants for meeting flight and employee safety objectives.

APPLICABILITY:

The form is to be completed for any one of five occurrences:

- ☐ Maintenance deficiency
- ☐ Aviation hazard
- ☐ Incident
- ☐ Incident with potential
- ☐ Accident

RESPONSIBILITY AND REQUIREMENTS FOR COMPLETION:

Incident/Aviation Hazard/Maintenance Deficiency Report.

It is the responsibility of any individual (including contractors) who observes or who is involved in an aviation incident/hazard/maintenance deficiency to report the occurrence immediately to local aviation management staff. Local Aviation Manager is responsible for reviewing the report and forwarding it through agency channels.

- ☐ Within two working days after an aircraft incident, aviation hazard, or maintenance deficiency, the Local Aviation Manager or participant in the flight shall complete and submit Form OAS-34 Aircraft Incident/Aviation Hazard/Maintenance Deficiency Report. The report shall be forwarded by express mail or fax to the State, Area, or Regional Aviation Manager within three working days after the occurrence.
- ☐ With the exception of incidents with serious potential, the State/Area/Regional Aviation Manager shall, within five working days after the occurrence of the incident/hazard, review, add comments as necessary, and forward the report to AMD and to the Bureau/Office Aviation Safety Manager.
- ☐ Serious incidents with potential to cause an accident (occurrences which meet "incident" criteria, and especially near mid-air collisions) shall be reported <u>immediately</u>.

Initial Report of Incident or Accident.

The responsible employee shall document that facts and immediately file the report with his/her supervisor. Regions shall immediately report by telephone all aviation accidents or incidents with potential to the National Aviation Safety Officer.

Each individual and each organization has an obligation to others in aviation to share hazard, mishap and causal information. Each unit's aviation accident prevention plan should, therefore, contain provisions for encouraging the reporting of such information by individuals. The information is documented and processed for system-wide distribution.

- ☐ Copies are routed to the Regional Aviation Safety Manager and Forest Aviation Officer as soon as possible. Accidents and incidents with potential are to be reported immediately.

SAFECOM FORM LOCATION:

Reference the Interagency Helicopter Operations Guide, Appendix C, Exhibit C-1.
Electronic versions of the SAFECOM are online at www.safecom.gov.

STATE AND LOCAL AGENCY REPORTS:

Reference local formats. Federal personnel managing helibases or engaging in helicopter missions for state or local agencies should complete the state or local format. If none exists, complete a SAFECOM OAS-34 (FS 5700-14) and submit to the local unit Aviation Manager.

Flight Planning Checklist

A. Required Information

1. Passenger names/body and baggage weights*
2. Date/time of requested flight*
3. Flight route/itinerary*
    a. Aircraft needed to standby/R.O.N.
4. Pick up/drop off location for passengers (FBO)*
5. Establish a Chief of party/flight manager for flight*
6. Cargo: type/weight/volume/any hazardous materials*
    a. Will cargo fit through aircraft door?
7. Cost comparison done.
    a. Determine alternate means of travel
        i. Commercial airliner
        ii. Government owned aircraft

B. Environmental Factors

1. Day or night flight
    a. Night requires twin engine IFR aircraft for passengers.
    b. Single engine aircraft for cargo OK at night with pilot discretion.
2. Weather Conditions
    a. Thunderstorms
    b. High temperatures
    c. Winds
    d. Know ice conditions
    e. Visibility (fog/dust/smoke)
3. Terrain
    a. High elevation
    b. Mountains
4. Density Altitude
    a. High temperatures and elevation; aircraft will need 25% more runway for takeoff.
    b. Number of passengers and amount of cargo an aircraft can transport is reduced.

C. Airport Factors

1. Runway length adequate
2. Runway gravel vs. hard surface
    a. Can aircraft operate on gravel?
3. Runway load bearing weight
    a. Is aircraft too heavy for airport?
4. Elevation
5. Runway lights (YES or NO)
6. IFR approach
7. Fueling facilities
    a. Type of fuel available (Avgas/Jet)
8. Noise restrictions

D. Aircraft Criteria

1. Approved*
2. Number of insured seats
3. Payload
4. Multi or single engine
5. IFR vs. VFR
6. De-icing equipment
7. Speed
8. Fuel type & consumption
9. High wing or low wing
10. Any avionics requirement

E. Pilot Criteria

1. Approved for specific flight.*
   a. IFR/multi engine qualified?
2. Duty day limitation (14 hours)
   a. When did duty day start?
3. Flight hour limitations
   a. 8 hour flight time for single pilot
   b. 10 hours flight time for dual pilots

F. NIFC Large Transport Requirements

1. NICC responsible for all flight planning.
2. Notify local airport manager of jet's arrival.
3. Notify local fire department (if required).
4. Notify crew desk/supv. dispatcher/ramp manager.
5. APU available
6. Stairs available

G. Dispatcher Responsibilities

1. Relay flight information to vendor, pilot, ramp manager, and overhead desk.
2. Determines means of flight following.
3. Relays flight following information to GACC, sending & receiving units.
4. Briefs flight manager.

H. Flight Manager Responsibilities

1. Ensures that all passengers are at initial departure location.
2. Briefs pilot and passengers on flight.
3. Informs dispatch of any changes in passengers or flight route.
4. Verifies that aircraft and pilot are agency's approved.
5. Ensures that passengers receive a safety briefing from pilot.
6. Ensures pilot complies with flight following procedures.
7. Verifies flight invoice entries.
8. Completes and submits SAFECOM for any flight irregularities.

Temporary Flight Restriction (TFR) Request
Checklist

Document all actions pertaining to TFRs. Check your local Geographical Area procedures for processing.

- ☐ "A" number to Geographical Area Coordination Center (GACC)
- ☐ Request TFR from Air Route Traffic Control Center (ARTCC)
- ☐ Provide the following information:
  - Estimated duration of operations
  - Brief description of incident/hazard/or nature of airborne relief
  - VOR, DME, Latitude, Longitude
  - Horizontal restriction (standard is 5 nautical miles from incident or project center point)
  - Vertical restriction (2,000 ft. above either the highest elevation or air operations base)
  - Contact point
- ☐ Request call back from ARTCC with confirmation that TFR is in place.
- ☐ Request advisory NOTAM from local FSS for both disaster and non-disaster air operations.
- ☐ Relay TFR information and status to unit dispatch, GACC, incident commander, and responding air resources.
- ☐ Consult with incident commander, air operations branch director or project manager on whether TFR dimensions are adequate. Modify TFR dimension as necessary.
- ☐ Cancel TFR with ARTCC when it is no longer needed.
- ☐ Dissemination (Map and NOTAM):
  - Airtanker Bases
  - Helibases
  - Fixed Base Operators
  - Military Schedulers
  - GACC

Frequency Management Checklist

- ☐ Order additional temporary emergency radio frequencies through the GACC to NICC.
- ☐ Use Area assigned VHF-AM frequencies.
- ☐ Air Tanker Base Ramp Frequency: **123.975 MHz**
- ☐ National flight following frequency: **168.650 MHz**
  - Frequency for the tracking of national share resources (air tankers, lead planes, helicopters) between Geographic Areas. Frequency is not for local flight following.
- ☐ National Air Guard frequency: **168.625 MHz**
  - Frequency is for emergency communication only.
    - Air to Air emergency contact and coordination.
    - Ground to Air emergency contact.
    - Initial call, recall, and re-direction of aircraft when no other contact frequency is available.

Portable Retardant Base Checklist

- ☐ Determine suitable base
  - Adequate water source
  - Air Tanker or Helicopter Operations
  - Coordinate base operation with airport manager
- ☐ Additional personnel
- ☐ Housing/meals/transportation
- ☐ Support equipment
- ☐ Consider private vendors that are available and self-supporting
- ☐ Assign agency liaison for safety, efficiency, cost effectiveness and contract assistance
- ☐ Lead time for set up of operation

Temporary Tower Checklist

- ☐ Temporary tower should be activated when:
  - Operation being conducted from or in the proximity to an uncontrolled airport.
  - High volume of aircraft anticipated in close proximity to each other.
  - High frequency of non incident aircraft using common airspace.
  - Visibility is limited at an uncontrolled airport.
- ☐ Request for a temporary tower is done on aircraft resource order through normal dispatch channels.
  - Tower consists of 2 FAA controllers (no actual tower).
  - See Interagency Air Space Coordination Guide for more details.
- ☐ Check with incident/project whether relief controllers will be required.
- ☐ Discuss with incident/project the required support for the temporary tower.
  - Radio (VHF base station)
  - Anemometer
  - Wind sock
  - Altimeter
  - Thermometer
  - Compass
  - Shelter with a view of the entire airport
    - Trailer
    - Electric
    - Telephone
  - Lodging & Meals
- ☐ Notify Regional Airspace Coordinator of Temporary Tower request.
- ☐ Ensure that temporary tower information is disseminated to all appropriate units.
  - FAA NOTAM
- ☐ Consult with Airport Manager.
- ☐ Ensure Unit Aviation Officer briefs FAA controller on their arrival.

Supplemental Information Checklist

IF the order is for.....	**THEN** determine if the following is needed.....
Relief planning for Lead/ATCO/ASM/ATGS	Consider duration of incident. Pilot flight hour and duty day limitations. Aircraft refueling. Rest break for pilot.
Infrared	□ IR Interpreter □ IR Request
Aerial Ignition	□ Manager/module/operator □ Firing equipment □ Fuel
SEAT	□ Manager □ Retardant □ Water Source/Tender
Detection	□ Radio Kit - with VHF-FM capability □ Qualified Observer

Aircraft Make and Model Reference Information

Air Tanker Information:

Make/Model	Length (feet)	Wing Span (feet)	Cruise Speed (kts/mph)	Contract Operating Wt. (pounds)	Retardant Load (gallons)	Number of Gates
C-130 MAFFS	99	133	239/275	108,537	3000	1
P-3A	116	99	255/290	95,100	3000	8
DC-7	112	128	226/260	102,250	3000	6-8
DC-6	111	118	208/240	86,200	2400	6-8
DC-4	93	118	191/220	63,000	2000	4-8
P2V	86	98	195/225	73,900	2400	6
SP2H	95	98	191/220	60,000	2000	1
S-2F	44	73	175/200	25,000	800	4
CL-215	65	94	164/189	NA	1300	2

Helicopter Information:

Make/Model	Length (feet)	Rotor (feet)	Bucket Size (gallons)	Cruise Size Speed (kts/mph)	Number of Pax Seats
TYPE I					
Kaman H-43	25	47	324	85/98	N/A
Bell 214 B-1	62	52	660-880	140/160	15-20
Blackhawk UH-60	65	54	660	145/167	14-17
Sikorsky S-61N	73	62	900	120/138	N/A
Boeing Vertrol 107	83	50	900-1000	120/138	N/A
Boeing 234(CH-47)	99	60	3000	135/185	46
Sikorsky S-64 Skycrane	89	72	2000	80/92	N/A
TYPE II					
Bell 204B/UH-1B	55	48	240	90/104	10
Bell Super 204	55	48	324	90/104	10
Bell 205 A-1	57	48	324	90/104	14
Bell 212	58	48	324	100/115	13
Bell 412	56	46	420	110/115	13
Sikorsky S-58T	42	56	420	90/104	12-18
TYPE III					
MD-500D (Hughes)	31	26	96-108	120/138	4
Bell 206 BIII Jet Ranger	39	33	96-108	97/112	3
Bell 206 L-3 Long Ranger	43	37	96-144	110/127	6
AS-350 D-1 Astar	43	35	108-144	108/124	4
AS-350 B-2 Ecureuil	43	35	240	125/144	5
AS-355 F-1 Twin Star	43	35	108-144	115/132	4
SA-315 B Lama	43	36	180	80/92	4
SA-316B Alouette III	42	36	144	80/92	6

Fixed Wing Information:

Make/Model	Length (feet)	Wing Span (feet)	Cruise Speed (kts/mph)	Payload (pounds)	Number of Pax Seats	Req. Runway Length (feet)
Single Engine						
Cessna 172	27	36	122/140	600	3	1700
Cessna 180	26	36	109/125	600	3	1700
Cessna 182	28	36	135/155	600	3	1700
Cessna 182RG	28	36	152/175	600	3	1700
Cessna 185	26	36	109/125	600	3	1700
Cessna 205	28	36	135/155	900	5	2000
Cessna 206	28	36	135/155	900	5	2000
Cessna 210	28	37	165/190	1100	6	2000
Cessna 210(Turbo)	28	37	191/220	1100	6	2000
Piper PA-18 Supercub	23	35	100/115	100	1	500
Piper PA-32R Lance	28	33	135/155	900	5	2000
Beech Bonanza	26	34	165/190	700	4-5	2000
DHC-2 Beaver (Floats)	30	48	100/115	1400	6	1700
Twin Engine						
Cessna 337 Skymaster	30	38	148/170	600	3	2000
Cessna 340	43	38	182/210	900	5	3000
Cessna 414	36	44	174/200	900	5	2600
Cessna 421Golden Eagle	34	40	191/220	1600	7-9	2800
Cessna 441Conquest I/II	39	49	252/290	1400	8	2800
Piper PA-23 Aztec	31	37	174/200	900	5	2000
Piper PA-34 Seneca	29	39	161/185	900	5	2500
Piper PA-42 Cheyenne II	43	48	273/315	2000	11	3300
Piper PA-42 Cheyenne III	43	48	295/340	2000	11	3300
Beechcraft Baron 55	28	38	187/215	900	5	2300
Beechcraft Baron58/P	30	38	187/215	900	5	3000
Beechcraft King Air 100	36/40	50	226/260	1100	6	3000
Beechcraft King Air 200	44	55	278/320	2200	9-12	3300
Aero Commander 500	35	45	169/195	900	5	3000
Aero Commander 690	44	47	247/285	1200	7	3000
Aero Commander 840	44	49	247/285	1600	9	3000
Partenavia P-63	31	39	161/185	900	5	1600
Islander BN-2	36	49	130/150	1800	10	1500
DC- 3 Turbo	58	96	182/210	9000	20-30	2000
Sherpas S-330(C-23)	58	75	148/170	3500	20	3800
DHC-6 Twin Otter	53	65	148/170	3000	15-19	2000
Casa 212	50	62	169/195	3400	19	2500
MU-II	34	40	300/345	3350	9	1800

Phonetic Alphabet

Character	Telephony	Phonic (Pronunciation)
A	ALFA	(AL-FAH)
B	BRAVO	(BRAH-VOH)
C	CHARLIE	(CHAR-LEE OR SHAR-LEE)
D	DELTA	(DELL-TAH)
E	ECHO	(ECK-OH)
F	FOXTROT	(FOKS-TROT)
G	GOLF	(GOLF)
H	HOTEL	(HOH-TEL)
I	INDIA	(IN-DEE-AH)
J	JULIETT	(JEW-LEE-ETT)
K	KILO	(KEY-LOH)
L	LIMA	(LEE-MAH)
M	MIKE	(MIKE)
N	NOVEMBER	(NO-VEM-BER)
O	OSCAR	(OSS-CAH)
P	PAPA	(PAH-PAH)
Q	QUEBEC	(KEH-BECK)
R	ROMEO	(ROW-ME-OH)
S	SIERRA	(SEE-AIR-RAH)
T	TANGO	(TANG-GO)
U	UNIFORM	(YOU-NEE-FORM OR OO-NEE-FORM)
V	VICTOR	(VIK-TAH)
W	WHISKEY	(WISS-KEY)
X	XRAY	(ECKS-RAY)
Y	YANKEE	(YANG-KEY)
Z	ZULU	(ZOO-LOO)
1	ONE	(WUN)
2	TWO	(TOO)
3	THREE	(TREE)
4	FOUR	(FOW-ER)
5	FIVE	(FIFE)
6	SIX	(SIX)
7	SEVEN	(SEV-EN)
8	EIGHT	(AIT)
9	NINE	(NIN-ER)
0	ZERO	(ZEE-RO)

Conversion from USA Time Zones to UTC (ZULU)

ALASKA DAYLIGHT +8
HAWAIIAN STANDARD +10
EST = Eastern Standard Time
CDT = Central Daylight Time
MST = Mountain Standard Time
PDT = Pacific Daylight Time
PST = Pacific Standard Time
MDT = Mountain Daylight Time

UTC GMT	EST CDT +5	CST MDT +6	MST PDT +7	PST +8
0000	7 PM	6 PM	5 PM	4 PM
0100	8 PM	7 PM	6 PM	5 PM
0200	9 PM	8 PM	7 PM	6 PM
0300	10 PM	9 PM	8 PM	7 PM
0400	11 PM	10 PM	9 PM	8 PM
0500	MIDNIGHT	11 PM	10 PM	9 PM
0600	1 AM	MIDNIGHT	11 PM	10 PM
0700	2 AM	1 AM	MIDNIGHT	11 PM
0800	3 AM	2 AM	1 AM	MIDNIGHT
0900	4 AM	3 AM	2 AM	1 AM
1000	5 AM	4 AM	3 AM	2 AM
1100	6 AM	5 AM	4 AM	3 AM
1200	7 AM	6 AM	5 AM	4 AM
1300	8 AM	7 AM	6 AM	5 AM
1400	9 AM	8 AM	7 AM	6 AM
1500	10 AM	9 AM	8 AM	7 AM
1600	11 AM	10 AM	9 AM	8 AM
1700	NOON	11 AM	10 AM	9 AM
1800	1 PM	NOON	11 AM	10 AM
1900	2 PM	1 PM	NOON	11 AM
2000	3 PM	2 PM	1 PM	NOON
2100	4 PM	3 PM	2 PM	1 PM
2200	5 PM	4 PM	3 PM	2 PM
2300	6 PM	5 PM	4 PM	3 PM

Reference Section:

Forms	Purpose	Source
Flight Schedule/Request Form	Form provides flight request and manifest information, flight following documentation, and checklists for point to point and special use flights.	Local Dispatch Office National Mobilization Guide http://www.nifc.gov/nicc/mobguide/chapter_20.pdf
Flight Strips	Form used for flight following.	Local Dispatch Office
SAFECOMs	Form used for documenting unsafe aviation practices.	http://www.safecom.gov
Passenger and Cargo Manifest	Form used to document individuals' names, weights, home units and cargo weight.	(NFES 1289)
Aircraft Dispatch Form	Form used by helicopter manager and pilot with incident information.	(NFES 2567)
OAS-110 Travel Cost Analysis	DOI Cost analysis and flight approval form	http://amd.nbc.gov
FS-5700-10 Flight Justification Form	Forest Service flight approval form	http://www.fs.fed.us/fire/aviation
FS-5700-11 Forest Service Cost Comparison Form	Forest Service cost analysis form	http://www.fs.fed.us/fire/aviation
FS-5700-12 Day Trip Authorization Form	Form is used to approve and document non Federal passengers and contractors on Forest Service controlled aircraft.	http://www.fs.fed.us/fire/aviation
Senior Travel Form GSA 3641	Form is used to report the travels of SES, non Federal passengers, and contractors on government controlled aircraft and use.	www.gsa.gov
TFR Request Form	Form used to request a Temporary Flight Restriction.	National Mobilization Guide http://www.nifc.gov/nicc/mobguide/chapter_20.pdf
Temporary Tower Request Form	Form used to request a FAA Temporary Tower.	National Mobilization Guide http://www.nifc.gov/nicc/mobguide/chapter_20.pdf
Smokejumper Initial Attack Request	Resource order used to request smokejumper.	Local Dispatch Office-ROSS
Tactical Aircraft Form	Form used by ATGS to document aircraft responding to or on an incident.	Local Dispatch

Forms	Purpose	Source
Tactical Fix-Wing Information Sheet	Form used to obtain transit tactical aircraft and vendor information	
Infrared Aircraft Scanner Form	Form used to request an infrared flight for an incident.	National Mobilization Guide http://www.nifc.gov/nicc/mobguide/chapter_20.pdf
Orange Card		NFES 1399

Manuals	Agency	Source
Departmental DOI 350-354 DM	Department of the Interior Bureaus	http://amd.nbc.gov
FSM 5700 Aviation Management	US Forest Service	http://www.fs.fed.us/iire/aviation
BIA Indian affairs Manual Part 57	Bureau of Indian Affairs	http://www.doi.gov/bureau-Indian-affairs.html
BLM 9400 Operational Procedures	Bureau of Land Management	http://aviation.blm.gov
FWS Manual 330-339 – Aviation Management	US Fish and Wildlife Service	www.fws.gov/fire
NPS RM-60 Aviation US Forest Service Management Reference Manual	National Park Service	www.nps.gov/nifc/
State Aviation	State	State Fire Organizations
14 CFR Federal Aviation Regulations (FARs) Aeronautical Information Manual (AIM)	Federal Aviation Administration	http://FAA.gov
Interagency Standards for Fire and Fire Aviation Operations (Redbook)	Interagency	http://www.nifc.gov/red_book/
Wildland Fire and Aviation Operations guide (Bluebook)	Bureau of Indian Affairs	Regional BIA Fire Operation

Handbooks	Agency	Source
USFS Handbook 5709.16	US Forest Service	http://www.fs.fed.us/iire/aviation
Aviation Life Support Equipment Handbook	Department of the Interior Bureaus	http://amd.nbc.gov
Interagency Aviation Transport of Hazardous Materials Handbook	Interagency	(NFES 1068) National Fire Equipment System Catalog Part 2 Publications http://amd.nbc.gov
Fireline Handbook – NWCG Handbook 3	Interagency	(NFES 0065) National Fire Equipment System Catalog Part 2 Publications http://www.nwcg.gov
FSH 5709.11 Fixed Wing Handbook	US Forest Service	http://www.fs.fed.us/iire/aviation
FSH 5709.14 Smokejumper Operations Handbook	US Forest Service	http://www.fs.fed.us/iire/aviation
FSH 5709.16 In-Service Flight Operations	US Forest Service	http://www.fs.fed.us/iire/aviation
FSH 6309.11 Contract Administration Handbook	US Forest Service	http://www.fs.fed.us/iire/aviation
FSH 6709.12 Health and Safety Code Handbook	US Forest Service	http://www.fs.fed.us/iire/aviation
Heliport Installation Handbook	Bureau of Land Management	http://aviation.blm.gov
Military Handbook	Interagency	NFES 2175; http://www.nifc.gov/nicc/
Aerial Capture Eradication and Tagging of Animal Handbook	Department of the Interior Bureaus	http://amd.nbc.gov
Aviation Fuel Handling Handbook	Department of the Interior Bureaus	http://amd.nbc.gov
Aviation Life Support Equipment (ALSE) Handbook	Department of the Interior Bureaus	http://amd.nbc.gov
Helicopter Short-Haul Handbook	Department of the Interior Bureaus	http://amd.nbc.gov
DOD AP/1A & 1B Handbook & Charts	Department of Defense	NIMA 800-455-0899 NOAA 800-0638-8972 X-129
BLM Wild Horse and Burro Aviation Handbook	Bureau of Land Management	http://aviation.blm.gov

Guides	Agency	Source
Air Tactical Group Supervisor Guide	Interagency	(NFES 1393) National Fire Equipment System Catalog Part 2 Publications
Interagency Aviation Mishap Response Guide and Checklist	Interagency	http://amd.nbc.gov
Incident Response Guide	Interagency	(NFES 1077) National Fire Equipment System Catalog Part 2 Publications http://www.nwcg.gov
Field Reference Guide for Aviation Users	Department of the Interior Bureaus	http://amd.nbc.gov
Interagency Smokejumper Pilots Operation Guide	Interagency	http://amd.nbc.gov
National Mobilization Guides	Interagency	http://www.nifc.gov/nicc/ (NFES 2091) National Fire Equipment System Catalog Part 2 Publications
Local/Geographical Mobilization Guides	Interagency	GACC and Local Dispatch Office Web pages
Interagency Air Tanker Base Operations Guide	Interagency	(NFES 2271) National Fire Equipment System Catalog Part 2 Publications
Interagency Airspace Coordination Guide	Interagency	http://amd.nbc.gov
Interagency Airtanker Base Directory	Interagency	(NFES 2537) National Fire Equipment System Catalog Part 2 Publications
Interagency Helicopter Operations Guide	Interagency	(NFES 1885) National Fire Equipment System Catalog Part 2 Publications
Interagency Rappel Guide	Interagency	http://amd.nbc.gov
Interagency Single Engine Air Tanker Ops. Guide	Interagency	(NFES 1844) National Fire Equipment System Catalog Part 2 Publications
Regional Frequency Guide	Interagency	Regional Aviation Manager/Officer
Aircraft Identification Guide	Interagency	(NFES 2393) National Fire Equipment System Catalog Part 2 Publications

Guides	Agency	Source
Interagency Aviation Technical Assistance Directory	Interagency	(NFES 1393) National Fire Equipment System Catalog Part 2 Publications http://amd.nbc.gov
Interagency Aviation User Pocket Guide	Interagency	(NFES 1373) National Fire Equipment System Catalog Part 2 Publications http://amd.nbc.gov
Interagency Retardant Base Planning Guide (Fixed & Rotor Wing)	Interagency	(NFES 1259) National Fire Equipment System Catalog Part 2 Publications
Interagency Aerial Ignition Guide	Interagency	(NFES 1080) National Fire Equipment System Catalog Part 2 Publications http://amd.nbc.gov
Interagency Aviation Training Guide	Interagency	http://amd.nbc.gov
The Professional Helicopter Pilot	Interagency	(NFES 2002 & 2487) National Fire Equipment System Catalog Part 2 Publications http://amd.nbc.gov
Basic Aviation Safety Student Guide	Interagency	(NFES 2097) National Fire Equipment System Catalog Part 2 Publications
2004 Emergency Response Guidebook	US Department of Transportation	http://hazmat.dot.gov/gydebook.htm
Interagency Call-When-Needed Helicopters	Interagency	(NFES 2168 & 2097) National Fire Equipment System Catalog Part 2 Publications http://amd.nbc.gov

Plans/Other Publications

Plans	**Agency**	**Source**
MAFFs Operating Plan	Interagency	Regional or Unit Aviation Manager/Officer
State/Regional Aviation Plan	Agency Specific	Regional or Unit Aviation Manager/Officer
Unit Aviation Plan	Agency Specific	Unit Aviation Manager/Officer
Project Safety Plan	Agency Specific	Unit Aviation Manager/Officer
Regional/State Aviation Safety and Mishap Prevention Plan	Agency Specific	Regional or Unit Aviation Manager/Officer

Other Publications		
Safety Alerts	Agency Specific	National/Regional/Unit Aviation Manager/Officer
Information Bulletins (DOI)	Department of the Interior Bureaus	http://amd.nbc.gov
Operational Procedures Memoranda (OPMs) DOI	Department of the Interior Bureaus	http://amd.nbc.gov
Interim Directives (USFS)	Forest Service	http://www.fs.fed.us/iire/ aviation
Airport /Facility Directories	Commercial Source	Local book store or FBO
MOU and Cooperative Agreements	Agency Specific	National/Regional/Unit Aviation Manager/Officer
OMB Circulars	Office of Management and Budget	www2.whitehouse.gov/WH/EOP/OMB/html/circular
Aeronautical Chart User Guide	Commercial Source	Local book store or FBO
Jane's World Aircraft Recognition Handbook	Commercial Source	http://www.janes.com/ Local Book Store
Flight Guide	Commercial Source	http://www.flightguide.com/ Source for ordering Airport Guide

Web Sites

Agency	Web Address	Information
	http://www.fs.fed.us/iire/aviation	Home page for US Forest Service Aviation
AMD	http://amd.nbc.gov	Home page for Department of the Interior Aviation Management Directorate (AMD) Aircraft and Pilot source list
BLM	http://aviation.blm.gov.	BLM Aviation home page
BIA		
NPS	www.nps.gov	NPS Aviation home page
USFWS	www.fws.gov/directives/330fwl.htm	USFWS Aviation home page
STATE		
FAA	http://FAA.gov	FARs and NOTAM information
NTSB	http://www.ntsb.gov	National Transportation Safety Board accident information
NOAA	http://www.noaa.gov	Weather information
Commercial Source	http://www.dispatcher.org/brief/adfbrief.html	Weather information
Interagency	http://www.safecom.gov	SAFECOMs home page
US Navy	Http://www.usno.navy.mil./	Source for Sunrise and Sunset Tables
FAA	http://www.notams.jcs.mil/.gov	NOTAMS and TFR information
Commercial Source	http://www.airnav.com	Airport information
Commercial Source	http://www.gc.kls2.com	Great Circle Mapping
Interagency	http://www.AFF.gov	Automated Flight Following (AFF)
Forest Service	http://nirops.fs.fed.us/rcr/scanner	Online program that allows individuals to enter and edit IR scanner information
Forest Service	Regional Web site	Helicopters-CWN
Forest Service	http://famwebnwcg.gov	Aviation Management Information System (AMIS)
DHS	www.dhs.gov	
TSA	www.tsa.gov	
BLM	http://www.nifc.gov	Stand-alone IMS
Forest Service	http://www.aviation.fs.fed.us/carding/index.asp	Aircraft and pilot source list

Required Cost Comparison Information

Required Information	Special Use/Mission	Logistical	Administrative (Point to Point)
General	Mission requirements will filter out the appropriate aircraft. Estimate of number of project days and flight hours.	Mission requirements will filter out the appropriate aircraft. Number of passengers, amount of baggage and cargo. Flight route or destinations.	Number of passengers to be transported. GS and SES salary or hourly wage information. Date, time and location of meeting. Nearest commercial airport/s to passenger drop off location/s. Per diem rate for destination. Number of per diems days.
Specific	Specialize equipment needed (seeder). Vendor support personnel needed. Aircraft fuel truck needed.	Determine number of flight and standby hours based on flight route. Nearest commercial airport/s to passenger drop off locations. Airline fare to passenger destinations.	Commercial airline information. Transportation cost. Loss work time. Charter and government aircraft information. Flight route or destinations. Number of flight and standby hours based on flight route. 10% Federal Excise Tax (FET).
Vendor/ Aircraft	Flight Rate Standby Rate/Guarantee hours Daily Availability Rate	Flight Rate Stand by Rate Aircraft Airspeed Daily Availability Rate	Flight Rate Standby Rate Aircraft Airspeed Daily Availability Rate

Cost Comparison Formulas

Flight Time:

Distance divided by aircraft airspeed = flight time

Example: Distance of 250 statute miles
Bell 205 airspeed of 104 mph

$$\frac{250 \text{ miles}}{104 \text{ mph}} = 2.4 \text{ hours of flight time}$$

Flight Costs:

Flight rate X number of flight hours = flight costs

Example: Flight rate of $400/hour
2 flight hours
$400/hour X 2 hours = $800.00

Standby Costs:

Standby rate X number of standby hours = standby costs

Example: Standby rate of $50/hour
2 standby hours
$50/hour X 2 hours = $100.00

Per Diem Costs:

Per diem rate X number of days X number of individuals = per diem costs

Example: Per diem rate of $50/day
2 days, 2 individuals
$50/day X 2 days X 2 = $200.00

Fuel Truck Costs:

Fuel mileage rate X number of miles = fuel truck costs

Mileage rate based on size of fuel truck (gallons)

Example: Mileage rate of $0.10/mile
100 miles
$0.10/mile X 100 miles = $10.00

Commercial Airfare Cost:

Air fare X number of passengers = commercial airfare costs

Example: Air fare: $300.00 (round trip)
6 passengers
$300.00 X 6 passengers = $1800.00

Loss Work Time Cost:

Number of loss work hours X individual hourly wage = loss work time costs

Example: Number of loss work time hours: 10
GS-11 hourly wage: $20/hour
10 hours X $20/hour = $200.00

Transportation Cost:

Rental daily cost X number of days = transportation costs

Example: Rental car: $50.00/day
Rental car needed for 3 days
$50.00 X 3 days = $150.00

Specialized Equipment Costs:

Equipment rate X number of days = equipment costs

Example: Seeder: $700.00/Day
Seeder needed for 3 days
$700.00 X 3 days = $2100.00

Federal Excise Tax Costs:

10% FET X total flight costs (flight & standby costs) = FET costs

Example: Total flight cost: $700.00
0.10 X $700.00 = $70.00

Aviation Contacts

Position	Contact	Work Phone Number	Cell Phone Number
Unit Aviation Officer			
Regional/State Aviation Officer			
Regional Aviation Safety Manager			
Unit Helicopter Manager			
Regional/State Helicopter Specialist			
Units SEAT Manager			
Regional Aviation Maintenance Technical			
Regional Airspace Coordinator			
Regional ARTCC			
Regional ARTCC			
Local Flight Service Station			
Local Flight Service Station			
OTHERs			