AIRCRAFT DISPATCHER, D-312
PRE-COURSE WORK PACKET

Complete the pre-course work and return it to your course coordinator or lead instructor as directed.

Student Profile:

1. Name (as you want it to appear on your course certificate):

2. Position Title:

3. Home Unit Address:

4. Phone Number:

5. Email Address:

6. What are your expectations of this class?

Experience:

1. List your NWCG position qualifications. Include both qualified and trainee positions.

2. Give a brief description of your aviation experience and/or duties. For example: helitack experience, previous dispatch experience, flight manager duties, etc.

3. Who is your Unit Dispatcher (Dispatcher/Center Manager, Aircraft Dispatcher)? (First and last name)

4. What is your Automated Flight Following (AFF) and ROSS experience? (I use it for my job; I use it when on fire assignments; I never used ROSS)

5. Submit your A109-Aviation Radio Use and A111-Flight Payment Document course certificates with your pre-course work. These courses are required as part of the pre-course work for D-312, Aircraft Dispatcher.

6. Have you attended an ACE (Aviation Centered Education) session?
   Yes No If yes, date and location:

1. What other Interagency Aviation Training (IAT) courses have you taken?

Pre-Course Work Questions (130 possible points)

Use your local/regional aviation organization and reference materials to answer the questions. You may also refer to the following:

- The reference section in the Aircraft Dispatcher Reference Guide for a list of forms, manuals, handbooks, guides, plans, and other publications.

- IAT Glossary

- NWCG Glossary of Wildland Fire Terminology, PMS 205:

Go to this link to answer questions 1 – 8 about the Grand Junction Colorado Airport.

1. What is the latitude, longitude, and elevation of Grand Junction Airport? (1 point)

2. What is the FAA three-letter identifier for the airport? (1 point)

3. What is the name of a sectional chart that covers the airport? (1 point)

4. Which Air Route Traffic Control Center (ARTCC) jurisdiction does Grand Junction Airport fall under? (1 point)

   a. Salt Lake City
   b. Albuquerque
   c. Denver

5. What are the dimensions and surface type for Runway 11/29 AFF? (1 point)

6. Using the airport distance calculator found on the Web page, what is the distance from KPDX to Grand Junction? (1 point)

7. How many helipads are located at the airport? (1 point)

8. How many Fixed-Wing Base Operators (FBOs) are located at the airport? (1 point)

9. Print and submit the Instrument Approach Procedures for Runway Number 11. (1 point)

10. Who are your aviation contacts at the following levels? (3 points)

a. Local Unit Aviation Officer or Manager (District, Forest, Park, Refuge, etc.):_____

b. Regional or State Aviation Officer or Manager:_____

c. National Aviation Officer or Manager:_____

11. You are an aircraft dispatcher located at a Geographic Area Coordination Center. Indicate whether you would interact with the following individuals (Yes or No). (7 points)

a. Aviation User _____
b. Air Attack _____
c. Expanded Dispatch _____
d. Regional Aviation Officer _____
e. Vendors _____
f. Pilots _____
g. Contracting Officer _____
h. Smokejumper Spotter _____

12. Match the terms to the correct statements. (7 points)

a.	Airspace Deconfliction: _____	1.	Flights under visual conditions.
b.	Military Operation Area: _____	2.	Knowledge of the location of an aircraft.
c.	Special-Use Airspace: _____	3.	Process to reduce the risk of mid-air collision.

d. Flight Following: _____	4. Height above the surface of the Earth.
e. Visual Flight Rules: _____	5. Average height of the surface of the sea.
f. Mean Sea Level: _____	6. Airspace reserved for special military operations.
g. Above Ground Level: _____	7. Airspace reserved for flight operations that are not in a normal civilian category.

13. Choose the most correct statement describing Civil Aircraft. (1 point)
a. Aircraft only used in the service of the government.
b. An aircraft performing water dropping operations on a fire.
c. Any aircraft that is not public aircraft.

14. Who has final say on an aircraft flight? (1 point)

15. List five pieces of information an aircraft dispatcher needs to set up a flight: (5 points)

16. Select the statement that DOES NOT describe a Public Aircraft. (1 point)

a. Any aircraft on more than a 90 day contract.
b. An aircraft performing water dropping operations on a fire.
c. Any aircraft on less that a 90 day contract.
d. Aircraft only used in the service of the government.

17. Define the following aviation terms: (5 points)

a. Congested Airspace:

b. Operational Control:

c. Safety Alert:

d. Point to Point Flight:

e. Special-Use Flight:

18. What are a pilot's daily flight hour limitations, as found in the National Mobilization Guide? (1 point)

19. You have an incident that is located on a military training route. You have been asked to shut down the route. Can you shut down the route? (1 point)

20. What is the maximum number of consecutive duty hours a pilot may have in any assigned duty period? (1 point)

21. When can more restrictive flight/duty hour limitations be imposed and by whom? (1 point)

22. Can law enforcement enter a Temporary Flight Restriction (TFR) without permission? (1 point)

23. What are the Phase 2 Limitations for pilots, as found in the National Mobilization Guide? (1 point)

24. Can a media aircraft enter TFR without permission? (1 point)

25. What is the standard dimension for a TFR? (2 points)

26. What three pieces of information should an aircraft dispatcher obtain from an aircraft making a flight following check-in call (using radio or AFF)? (3 points)

27. During any 14 consecutive calendar days, how many calendar days of rest must a pilot be given? (1 point)

28. What are three purposes of flight following? (3 points)

29. Who is responsible for flight following? (1 point)

30. What is the standard interval for mission flight following check-in calls? (1 point)

31. Match the types of aircraft with the correct definition: (3 points)

a. Government Aircraft: ___ 1. Any aircraft maintained and operated by an active reserved component of the Department of Defense.

b. Cooperator Aircraft: ___ 2. Any aircraft that the government has operational control over for that flight.

c. Military Aircraft: ___ 3. Any affiliated military or other government agency aircraft.

32. Air tanker start-up time is _____ minutes before _____ and cut-off time is _____ minutes after _____. (1 point)

33. Go to this link to print and submit the current Sunrise and Sunset table for Redmond, Oregon. (1 point)

34. Match the following frequencies: (3 points)

a. National Air Tanker Frequency: ___ 1. 168.650

b. Air Guard: ___ 2. 168.625 Tone: 110.9

c. National Flight Following: ___ 3. 123.975

35. Match the reference material with the correct definition: (2 points)

a. Manual: ___ 1. Provides information not distributed in official regulations and guides.

b. Handbook: ___ 2. Information on preferred procedures for a specific aspect of aviation operations.

c. Guide: ___ 3. "How to" information on procedures, performance, and equipment specifications.

d. Plan: ___ 4. General policy statements and responsibilities.

36. Why is it important to have these manuals, handbooks, and guides in your agency directive system? (1 point)

37. What is the name and number, if applicable, of your agency's aviation manual? (1 point)

38. Cooperator (State, Private, Military) aircraft and pilots must be approved by the U.S. Forest Service or AMD prior to use by federal agency personnel. (1 point)
    e. True
    f. False

39. Match the controlled airspaces with the correct definition: (7 points)

a. Class A: ___	1.	Uncontrolled airspace.
b. Class B: ___	2.	Used for smaller airports that have a control tower.
c. Class C: ___	3.	International airspace.
d. Class D: ___	4.	Not depicted on sectional charts.
e. Class E: ___	5.	Surrounds the busiest airports.
f. Class F: ___	6.	Around airports and military air bases with a moderate traffic level.
g. Class G: ___	7.	Includes a large part of the lower airspace.

40. What are some of the Military Training Routes (MTR) and Military Operating Areas (MOA) in your area? (1 point)

41. An aircraft and pilot that have been carded by the U.S. Forest Service may be used by Department of the Interior personnel if their cards are current and they are approved for the type of mission to be flown. (1 point)
    a. True
    b. False

42. Match the terms to the correct situation: (4 points)

a. Aircraft accident: ___	1.	Aircraft engine will not start.
b. Aircraft incident: ___	2.	Near mid-air collision.
c. Aviation hazard: ___	3.	Passengers not wearing required PPE.
d. Maintenance deficiency: ___	4.	Airplane crash with fatalities.

43. Indicate the ICS Type for the aircraft criteria: (5 points)

Air tanker retardant capacity of 799 or less gallons: _____

Helicopter that can transport 15 or more passengers: _____

Helicopter bucket capacity of 700 or more gallons: _____

Air tanker retardant capacity of 1,800-2,999 gallons: _____

Helicopter that can transport 3-5 passengers: _____

Scenarios Exercises

For each scenario below, answer the questions and list the reference source where the applicable regulation **for your agency** is found. Reference sources may include agency directives, aviation manuals, handbooks, guides, FARs, etc.

Scenario 1:

You are the aircraft dispatcher at an interagency dispatch office. The unit aviation officer/manager just called to inform you there will be a helitorch operation on one of the local units in two days. The unit aviation officer/manager will be at your office in a few hours to brief you and the center manager on the project and answer any questions you might have on the operation.

1. List the manuals, handbooks, and guides that contain pertinent information on aerial ignition operations for your employing agency. (2 points)

2. Can the ignition specialist fly in the helicopter during the helitorch operation? (2 points)

Yes No

Agency Reference Source: _____

Chapter: _____

3. If an accident occurred on this project, what guide would you use to start emergency response procedures? (1 point)

4. What agency form would you fill out to report and document an aviation incident or accident? (1 point)

Scenario 2:

Your local fire manager would like to transport the lookout up to Wolf Point lookout next Wednesday. The flight will have to be by helicopter and will require several sling loads of gear. The fire manager has the following questions related to helicopter flight.

1. Can a passenger be transported while the helicopter is carrying a sling load? (2 points)

Yes No

Agency Reference Source: _____

Chapter: _____

2. What support personnel will be needed for the flight? (2 points)

Agency Reference Source: _____

Chapter: _____

Scenario 3:

A local biologist wants to take part in your local State Fish and Game's black bear survey. The state agency will use a Cessna 182 for the survey.

1. Can the biologist take part in the survey flight? (1 point)

2. Who should you suggest the biologist talk to about this flight? (1 point)

Scenario 4: Flight Cost Comparison

(this scenario has 120 possible answers; ¼ point for each answer for a total of 30 points)

The intent of this exercise is for you to work through the cost comparison process at your own pace. Information on cost comparison formulas can be found in the Aircraft Dispatcher Reference Guide.

Passenger Loss Work Cost is the cost the government incurs when employees

are away from their workstation. **Passenger Loss Work Cost** is calculated by multiplying the individual's hourly salary by the number of hours they are away from their workstation. For commercial airline, charter, and government flights, the following times can be included in the total hours used in the loss work cost calculation:

Commercial Airline:

1. Pre-boarding time at airports (2 hours at large airport, 1.5 at smaller airports)

2. Commercial flight time

3. Time waiting for connecting flights

4. Baggage/rental car pick up (0.5 hour)

5. Any driving time to/from employee meeting or training location.

Charter and Government Aircraft:

1. Pre-boarding and safety briefing time (0.5 hour)

2. Charter flight time with passengers on board (ferry time is not included in loss work cost)

3. Any driving time to/from employee meeting or training location.

Scenario: Six individuals (hourly wage: $27.30/individual) based in Portland, Oregon (PDX) have a meeting in Lakeview, Oregon (LKV) tomorrow morning. The meeting starts at 0900 and ends at 1600. The group needs to be in Lakeview 1 hour before meeting start time. The nearest commercial airport to Lakeview is at Klamath Falls, Oregon (LMT). Klamath Falls is about a 1.5 hour drive. Mr. Brown (group leader) would like to use a government or charter aircraft to fly the group directly to Lakeview. Mr. Brown's charge code is NFGS03. Under your agency regulations, you are required to compare the cost of these aircraft against commercial airline costs. Mr. Brown needs the information within 2 hours.

Passenger Manifest: B. Brown – 225 lbs, M. Mobile – 110 lbs,
J.K. Cocker – 130 lbs, G. Guide – 159 lbs, K. Coat – 200 lbs, S. Ship – 165 lbs

You called your travel agent and found out the commercial airline schedule between Portland and Klamath Falls is limited to the following daily morning and afternoon flights:

Portland to Klamath Falls:

Morning flight departs Portland at 0830 and arrives in Klamath Falls at 1000.

Afternoon flight departs Portland at 1700 and arrives in Klamath Falls at 1830.

Klamath Falls to Portland:

Morning flight departs Klamath Falls at 0630 and arrives in Portland at 0800.

Evening flight departs Klamath Falls at 2000 and arrives in Portland at 2130.

Commercial Airline Information for Cost Comparison:

Airline fare: $300.00 (round trip PDX to LMT)

Transportation cost (rental car cost $50.00/day)

Loss work time information:

Departure airport (2 hours large airport, 1.5 hours small airports).

Commercial flight time: 3.0 hours.

Arrival airports (0.5 hours, pick up baggage and rental car).

Travel time to the meeting site, if away from arrival city airport is 1.5 hours each way.

Lakeview/Klamath Falls per diem rate: $91/day

You check with your local charter aircraft vendors on aircraft availability for the flight. Only two vendors with aircraft are available for the flight date. One of the vendors is located in the Portland metro area and the other vendor is out of the Seattle area. Each charter company provides you with the following flight information:

Charter Aircraft Information for Cost Comparison:

Vendor A:

Aircraft Type: MU-2 (N100PJ)

Air Speed: 300 mph

Flight Rate: $1050.00/hour

Standby Rate:	$50.00/hour
Location:	Hillsboro (HIO), OR
Flight Route:	HIO to PDX to LKV to PDX to HIO
Flight Time:	HIO to PDX 0.3 hour (one way)
PDX to LKV	1.25 hour (one way)
Flight Hours:	3.1 hours
Standby Hours:	8 hours
Loss work time information:	
Departure airport time:	0.5 hour (safety briefing)
Actual flight time:	2.5 hours
Arrival airports time:	0.0 hours
Travel time to meeting site:	0.0 hours
Number of per diem days:	0.0 days
Vendor B:	
Aircraft Type:	Cessna 414 (N2769G)
Air Speed:	250 mph
Flight Rate:	$900.00/hour
Standby Rate:	$45.00/hour
Location:	Boeing Field (BFI), WA
Flight Route:	BFI to PDX to LKV to PDX to BFI

Flight Time: BFI to PDX 0 .75 hour (one way)

PDX to LKV 1.6 hours (one way)

Standby Hours: 8 hours

Loss work time information:

Departure airport time: 0.5 hour (safety briefing)

Actual flight time: 3.2 hours

Arrival airports time: 0.0 hours

Travel time to meeting site: 0.0 hours

Number of per diem days: 0.0 days

While you were on the phone talking with charter companies, B. Birch from Central Oregon Dispatch Center called with the following information for the Government aircraft:

Government Aircraft Information for Cost Comparison:

Agency:	USFS
Aircraft Type:	King Air 100 (N28M)
Air Speed:	270 mph
Flight Rate:	$750.00/hour
Stand By Rate:	$0.00/hour
Location:	Redmond (RDM), OR
Flight Route: to RDM	RDM to PDX to LKV to PDX
Flight Time: (one way)	RDM to PDX 0.75 hour
	PDX to LKV 1.75 hour (one way)
Flight Hours:	5.0 hours
Standby Hours:	8 hours
Loss work time information:	
Departure airport time:	0.5 hour (safety briefing)
Actual flight time:	3.5 hours
Arrival airports time:	0.0 hours
Travel time to meeting site:	0.0 hours
Number of per diem days:	0.0 days

You have received all the information you need to perform a cost comparison between commercial airline, charter, and government aircraft. Complete the forms on the following pages. Mr. Brown will be calling soon for the cost comparison information.

FLIGHT WORKSHEET

Passenger Information:

Requestor:_____ Requestor Phone #:_____
Destination/s _____ Departure Date:/Time:_____
Arrival Destination Time_____ Return Departure Date/Time:_____
Purpose of Trip:_____

	Name:	Organization	Charge Code	Body/Baggage Weight	Hourly Wage
1.					
2.					
3.					
4.					
5.					
6.					

Aircraft Information:

	Vendor Aircraft "A"	Vendor Aircraft "B"	Government Aircraft
Aircraft Tail #:			
Flight Rate:			
Standby Rate:			

Destination/s Per Diem:

Commercial Cost

Departure/Arrival Airports		Air Fare	X	# of Passengers	=	Cost
_____/_____		_____	X	_____	=	_____
_____/_____		_____	X	_____	=	_____
					Total Air Fare Cost:	

Passenger loss work cost:

Hourly Wage	X	# of Passengers	X	Travel Time (Hours)	=	Cost
_____	X	_____	X	_____	=	_____
_____	X	_____	X	_____	=	_____
_____	X	_____	X	_____	=	_____
_____	X	_____	X	_____	=	_____
_____	X	_____	X	_____	=	_____
					Passenger loss work cost:	

Per Diem Cost:

Destination M&IE	X	#of Passengers	X	Days	=	Cost
_____	X	_____	X	_____	=	_____
_____	X	_____	X	_____	=	_____
					Total Per Diem Cost:	

Rental Car Cost:

Aircraft Cost

Flight Route:								
Aircraft "A"	To	To	To	To				
Aircraft "B"	To	To	To	To				
Government	To	To	To	To				
Flight Leg Times: **(Distance/Airspeed)**								**Total Flight Time**
Aircraft "A"								
Aircraft "B"								
Government								
Flight Time Cost:	**Flight Rate**	**X**	**Total Flight Time**			**=**		**Cost**
Aircraft "A"		X				=		
Aircraft "B"		X				=		
Government		X				=		
Standby Time Cost:	**Standby Rate**	**X**	**# of Standby Hours**			**=**		**Cost**
Aircraft "A"		X				=		
Aircraft "B"		X				=		
Government		X				=		
Airport Tax Cost	**Total flight Cost**	**+**	**Total Standby Cost**	**X**	**0.1**	**=**		**Cost**
Aircraft "A"		+		X	0.1	=		
Aircraft "B"		+		X	0.1	=		

Aircraft Passenger Time Away Cost:

Aircraft "A"

Hourly Wage	**X**	**# of Passengers**	**X**	**Travel Flight Time (Hours + 0.5)**	**=**	**Cost**
_____	X	_____	X	_____	=	_____
_____	X	_____	X	_____	=	_____
_____	X	_____	X	_____	=	_____
_____	X	_____	X	_____	=	_____
					Total Cost:	

Aircraft "B"

Hourly Wage	**X**	**# of Passengers**	**X**	**Travel Flight Time (Hours + 0.5)**	**=**	**Cost**
_____	X	_____	X	_____	=	_____
_____	X	_____	X	_____	=	_____
_____	X	_____	X	_____	=	_____
_____	X	_____	X	_____	=	_____
					Total Cost:	

Government:

Hourly Wage	**X**	**# of Passengers**	**X**	**Travel Flight Time (Hours + 0.5)**	**=**	**Cost**
_____	X	_____	X	_____	=	_____
_____	X	_____	X	_____	=	_____
_____	X	_____	X	_____	=	_____
					Total Cost:	

Aircraft Passenger Per Diem Cost:

Aircraft "A"

Location Per Diem Rate	**X**	**# of Passengers**	**X**	**# of Days**	**=**	**Cost**
_____	X	_____	X	_____	=	_____
_____	X	_____	X	_____	=	_____
_____	X	_____	X	_____	=	_____
					Total Cost:	

Aircraft "B"

Location Per Diem Rate	**X**	**# of Passengers**	**X**	**# of Days**	**=**	**Cost**
_____	X	_____	X	_____	=	_____
_____	X	_____	X	_____	=	_____
_____	X	_____	X	_____	=	_____
_____	X	_____	X	_____	=	_____
					Total Cost:	

Government:

Location Per Diem Rate	**X**	**# of Passengers**	**X**	**# of Days**	**=**	**Cost**
_____	X	_____	X	_____	=	_____
_____	X	_____	X	_____	=	_____
_____	X	_____	X	_____	=	_____
_____	X	_____	X	_____	=	_____
					Total Cost:	

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OPM 7
Appendix 6

TRAVEL COST ANALYSIS

Justification for use of Government aircraft for travel:

A. BASIC DATA:

Dates and time of required times(s) at Temporary Duty Station(s) (TDS):

Location_____ Date_____ Hours Required to be on site_____ to _____
Location_____ Date_____ Hours Required to be on site_____ to _____
Location_____ Date_____ Hours Required to be on site_____ to _____

Manifest (only persons required to at TDS):

Name	Hourly Salary
_____	$_____
_____	_____
_____	_____
_____	_____
TOTAL Hours Cost of All Required Travelers	$_____

Annual Salary + 2087 x 1.20 = Hourly Salary Rate

Note: 1.20 covers average Fringe Benefits. Retirement. Health & Life Insurance. Medicare. Other Fringes. The 1.20 does not include COLA: for Alaska-based employees. Add an additional .25.

(Continue on attached sheet if needed)

B. COST COMPARISON:

1. **Commercial Airline Costs to meet the required TDS locations and times. Individual ticket cost x # of required travelers.** $_____
   - Cost of total duty hours away from office or regular duty station to meet commercial airline schedule. _____
   - Cost of required per diem and ground transportation. _____

   TOTAL Cost by commercial transportation $_____

2. **Leased, Contract, or Rental Aircraft.**
   1. Flight hours x flight hour costs. $_____
   2. Cost of total duty hours away from office or regular duty station. _____
   3. Cost of required per diem and ground transportation. _____
   4. Any additional aircraft or crew costs not included in above hourly rate, i.e., standby charges, tie down fees, overnight parking, extra crew, etc. _____

   TOTAL Cost by Lease, Contract, or Rental Aircraft. $_____

3. **DOI Operated Aircraft** – identify specific aircraft: _____
   - Flight hours required x variable flight hour cost. $_____
   - Cost of total duty hours away from office or regular duty station. _____
   - Cost of required per diem and ground transportation. _____
   - Any additional costs to be incurred that are not included in the above flight hour rate. Variable cost of crew, as defined on page 1 of OMB Circular A-126. Attachment B, if not included in the flight hour rate. (Do not include pilot costs here if pilot is one of the Government officials required to meet or perform duties at the TDY location.) _____
   - Fuel costs, if not included in the above flight hour rate. Any additional aircraft costs not in the above flight hour rate, i.e., tie down fees, overnight parking, etc. _____

   TOTAL Cost by DOI Fleet Aircraft. $_____

C. MOST COST EFFECTIVE METHOD:

☐ Commercial

☐ Lease, Contract or Rental – N#_____. Pilot/Crew _____

Purpose _____

☐ DOI Fleet ----------N#_____. Pilot/Crew _____

Purpose _____

REMARKS: *(Must be completed if other than most-cost-effective method is chosen.)*

D. GENERAL APPROVAL REQUIREMENTS FOR TRAVEL ON GOVERNMENT AIRCRAFT:

Print name of designated approving official	Signature	Date

E. SPECIAL APPROVAL REQUIREMENTS FOR REQUIRED USE TRAVEL: (see para. 11.b page 6 of OMB Circular A-126)

Print name of designated approving official	Signature	Date

F. SPECIAL APPROVAL REQUIREMENTS FOR USE OF GOVERNMENT AIRCRAFT FOR TRAVEL BY THE FOLLOWING CATEGORIES OF PEOPLE: (see para. 11.c. page 7 of OMB Circular A-126 and paragraph a., page 3-1 of OMB Bulletin No. 93-11)

1. **Senior Executive Branch Officials**
2. **Senior Federal Officials**
3. **Members of Families of Senior Executive Branch and Senior Federal Officials**
4. **Non-Federal travelers**

Print name of designated approving official	Signature	Date