

Appendix A

Forms

Appendix A

Forms List

PNNL GULFSTREAM G-1 PASSENGER BRIEFING FORM.....	A.1
PNNL PASSENGER TRANSPORT REQUEST.....	A.2
PNNL NON-RESEARCH PASSENGER TRANSPORT MANIFEST.....	A.3
PNNL RESEARCH AIRCRAFT PREFLIGHT SECURITY CHECKLIST.....	A.4
PNNL BOMB THREAT CHECKLIST.....	A.5
PNNL TRIP SHEET.....	A.6
PNNL CUSTOMER SATISFACTION SURVEY.....	A.7
PNNL TAKEOFF & LANDING DATA CARDS.....	A.9
PNNL FLIGHT LOG.....	A.11
PNNL AIRCRAFT DISCREPANCIES.....	A.12
PNNL AIRCRAFT DEFERRED DISCREPANCIES.....	A.13
PNNL AIRCRAFT DISCREPANCY CARRY-OVER LOG.....	A.14
PROTOCOL FOR PNNL FLIGHT OPERATIONS.....	A.15
PNNL'S AVIATION OPERATIONS CHECKLIST CHARTER AIRCRAFT.....	A.17
PNNL AVIATION SAFETY HAZARD REPORT.....	A.21
PNNL AVIATION SAFETY INCIDENT/ACCIDENT OR OFF-NORMAL EVENT OPERATIONS CHECKLIST.....	A.22
PNNL EMERGENCY NOTIFICATION CHART.....	A.23
PNNL AIRCRAFT MAINTENANCE STATUS.....	A.24
FAA STANDARD AIRWORTHINESS CERTIFICATE.....	A.25
FAA SPECIAL AIRWORTHINESS CERTIFICATE.....	A.25

FAA REGISTRATION.....	A.27
FLIGHT OPERATIONS REQUEST	A.28
INITIAL AIRCRAFT SUPPORT REQUEST.....	A.30
RESEARCH AIRCRAFT DEPLOYMENT DOCUMENT.....	A.31
PNNL SELF-ASSESSMENT CHECKLIST FOR RESEARCH AIRCRAFT OPERATIONS.....	A.40

PNNL GULFSTREAM G-1 PASSENGER BRIEFING FORM

Welcome Aboard!

Federal Aviation Regulations require that we point out some of this Gulfstream aircraft's many safety features.

To fasten your seatbelt, simply push the smaller metal tab into the end of the metal buckle, and pull on the belt end to tighten. If your seat is equipped with a shoulder strap, extend the shoulder strap and fasten it to the top of the metal buckle. The belt may be released by lifting the top of the buckle.

Should oxygen be required, the flight crew will ask you to don an oxygen mask. **NO SMOKING ALLOWED.** All smoking material must be extinguished before using the oxygen. The masks are located in the rear compartment drawer and must be removed from their containers. You will need to plug the oxygen hose into the receptacle located next to the vent above your seat. Place the mask over your nose and mouth and breathe normally.

Please note the six exits. The entry door may be opened by lifting the small lever on the door, and while holding it up, raise the large lever, then push on the lever to open the door. Also, the second and third windows on each side of the cabin are exits. If you pull down the lever above these windows, having removed any plastic lever covers, and pull on the handles beside the windows, the entire window will pull inward and may be set aside. You may then step through and onto the wing. In addition, if you pass into the rear baggage compartment, you will find an exit on the side of the compartment to your left. To open, lift the upper red and white striped handle, then lift the lower red handle and push outward on the door.

Life vests are located beneath the seats. If you put on a vest, and pull the attached cord, the vest will self-inflate. Please do not inflate the vest until you are outside of the aircraft.

You will find additional information, such as fire extinguisher location, on the passenger briefing card near your seat. Please take a moment to review it.

For your added comfort and safety, please observe the "NO SMOKING" and "SEAT BELT" signs.

Thank you for your attention, and have a pleasant flight.

PRE-LANDING BRIEFING

We will be landing shortly! Please make certain your seatback is in the upright position, the tables have been stowed away, your seatbelt is fastened, and that you observe the "NO SMOKING" signs.

Thank you for your cooperation, and we hope that you had a pleasant flight.

I have read, understood, and will adhere to the above stated instructions.

Signature

Date

PNNL PASSENGER TRANSPORT REQUEST

Requester

(Fill out spaces in box below and then obtain your ALD LD approval)

Requester:		Phone No.
Destination(s):		Account No.(s):
Date(s) of Travel Departure: Return:	Travel Time Departure: Return:	Purpose of Trip:
Passengers*:		
Contact Phone No.(s) (Hotel/Office):		

Laboratory Director Approval

Laboratory Director Approval:
(Laboratory Director Office: Return by e-mail to Ruth Keefe)

Checklist to be completed by the Flight Schedule Coordinator

Activity	Date	Comments
Obtain by e-mail approval from Laboratory Director		
Enter tentative flight on Schedule (print daily)		
Check availability of aircraft from the Director of Flight Operations C Phone: 509-372-6176		
Submit request to the Laboratory Director's Office by e-mail after above information and appropriate approval has been obtained		
After approval, call the Director of Flight Operations to C Obtain departure times and airports involved C Obtain airport and hotel phone numbers to contact PIC		
Change status of flight on Schedule to no longer tentative		
Prepare a Confirmation with the following information: C Date of trip C Destination C Departure and arriving airports C Times of departure and arrival C List of passengers C Hotel phone numbers and other contact phone numbers for passengers		
Distribute Confirmation C e-mail to Passengers C Fax & e-mail to the Director of Flight Operations (Fax 509-372-6168)		

*No more than 12 passengers. PNNL policy does not allow elected state/local officials to fly. Federal elected officers are not permitted to travel unless they present us with a first-class airfare upon boarding the plane.

**Staff will be charged coach unrestricted fare. Government employees will be charged FTR rates and must reimburse Battelle.

PNNL NON-RESEARCH PASSENGER TRANSPORT MANIFEST

Departure Flight				
Date	Departure Time	Airport	Arrival Time	Airport
Passengers:				
Pilot: Bob Hannigan				
Contact Phone No.(s): Office: (509) 372-6176 Hotel: ()				
Account No.:				

Stop-Over Flight				
Date	Departure Time	Airport	Arrival Time	Airport
Passengers:				
Pilot: Bob Hannigan				
Contact Phone No.(s): Office: (509) 372-6176 Hotel: ()				
Account No.:				

Return Flight				
Date	Departure Time	Airport	Arrival Time	Airport
Passengers:				
Pilot: Bob Hannigan				
Contact Phone No.(s): Office: (509) 372-6176 Hotel: ()				
Account No.:				

PNNL RESEARCH AIRCRAFT PREFLIGHT SECURITY CHECKLIST

Date of Flight: _____

Pilot: _____ **Phone Number:** _____

Procedure : If any of the following questions are answered in the negative, notify Security (509) 375-2400.

	Yes	No	NA
1. If passengers or crew are transporting classified materials, who is carrying the material?			
Full Name:			
Payroll #:			
Org. Code:			
Classification:			
Is the transporter or courier meeting applicable federal requirements?	[]	[]	
2. If carrying classified or Business Sensitive material, is the material packaged to meet applicable federal/state or PNNL regulations?	[]	[]	[]
3. If hazardous or radiological materials are being carried, are applicable federal/state regulations being met ?	[]	[]	
4. Are controlled substances, covered by federal and/or state law being carried?	[]	[]	[]
If yes, are applicable federal and/or state laws being met?	[]	[]	
5. If non-PNNL passengers are being carried, do they meet applicable federal and/or state regulations for hazardous toxic, radiological and/or classified material?	[]	[]	[]
6. Are packages and cargo marked to identify shipper and receiver?	[]	[]	[]
7. If firearms or ammunition are being carried, are they stored in the cargo area?	[]	[]	
8. If passengers from DOE, DoD, or other federal agencies are being carried, does the aircraft meet applicable DOE policies or regulations?	[]	[]	[]

PNNL BOMB THREAT CHECKLIST

INSTRUCTIONS: BE CALM, BE COURTEOUS, LISTEN, DO NOT INTERRUPT THE CALLER

NAME OF OPERATOR: _____ DATE: _____ TIME: _____

CALLERS IDENTITY: Male _____ Female _____ Adult _____ Juvenile _____ Approx. Age _____

ORIGIN OF CALL: Local _____ Long Distance _____ Booth _____ Internal (in complex) _____

- | | | | |
|--------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| Voice
Characteristics | Speech | Language | Accent |
| <input type="checkbox"/> Loud | <input type="checkbox"/> Fast | <input type="checkbox"/> Excellent | <input type="checkbox"/> Local |
| <input type="checkbox"/> High Pitch | <input type="checkbox"/> Distinct | <input type="checkbox"/> Fair | <input type="checkbox"/> Foreign |
| <input type="checkbox"/> Raspy | <input type="checkbox"/> Stutter | <input type="checkbox"/> Foul | <input type="checkbox"/> Not Local |
| <input type="checkbox"/> Intoxicated | <input type="checkbox"/> Slurred | <input type="checkbox"/> Good | <input type="checkbox"/> Race |
| <input type="checkbox"/> Soft | <input type="checkbox"/> Slow | <input type="checkbox"/> Poor | <input type="checkbox"/> Religion |
| <input type="checkbox"/> Deep | <input type="checkbox"/> Distorted | <input type="checkbox"/> Other | |
| <input type="checkbox"/> Pleasant | <input type="checkbox"/> Lisp | | |
| <input type="checkbox"/> Other | <input type="checkbox"/> Other | | |

- | | | |
|-------------------------------------|---|---|
| Manner | Background Noise | Additional Info |
| <input type="checkbox"/> Calm | <input type="checkbox"/> Factory Machines | <input type="checkbox"/> Aircraft ID |
| <input type="checkbox"/> Radical | <input type="checkbox"/> Bedlam | <input type="checkbox"/> Baggage ID |
| <input type="checkbox"/> Coherent | <input type="checkbox"/> Music | <input type="checkbox"/> Mail ID |
| <input type="checkbox"/> Angry | <input type="checkbox"/> Office Machines | <input type="checkbox"/> Crew Names |
| <input type="checkbox"/> Incoherent | <input type="checkbox"/> Street Traffic | <input type="checkbox"/> Unique Specific Info |
| <input type="checkbox"/> Deliberate | <input type="checkbox"/> Mixed Noise | <input type="checkbox"/> Industry Terminology |
| <input type="checkbox"/> Righteous | <input type="checkbox"/> Train | <input type="checkbox"/> Flight Itinerary |
| <input type="checkbox"/> Emotional | <input type="checkbox"/> Animal | <input type="checkbox"/> Departure Time |
| <input type="checkbox"/> Laughing | <input type="checkbox"/> Voice | <input type="checkbox"/> Actual Aircraft Location |
| | <input type="checkbox"/> Quiet | <input type="checkbox"/> FBO and/or Facility |
| | <input type="checkbox"/> Airplane | |
| | <input type="checkbox"/> Other | |

BOMB FACTS

PRETEND DIFFICULTY WITH HEARING - KEEP CALLER TALKING - DOES CALLER SEEM AGREEABLE TO FURTHER CONVERSATION, ASK QUESTIONS LIKE:

- | | | |
|----------------------|--------------------|------------------------------|
| When will it go off? | Certain hour? | Time remaining? |
| Where is it located? | Building/Aircraft? | Area? |
| What kind of bomb? | Type? | Why are you doing this? |
| What is your name? | First/Last Name? | What do you want? |
| Where are you? | Address/Location? | Do you know anyone on board? |

NOTE: WHEN THE CALLER HANGS UP, DO NOT HANG UP THE PHONE ON ANOTHER PHONE LINE, NOTIFY PHONE COMPANY TO TRACE CALL.

Trip Dates
Aircraft ID
Type

Description
Requester
Contact Phone () -

	Pax	Zulu	Local	Zulu	Miles	ETE
Leg 01						
Leg 02						
Leg 03						
Leg 04						

CREW PILOT
PILOT IN COMMAND
PILOT

ADDL CREW

AIRPORT NOTES

OUTBOUND INSTRUCTIONS

NBR PASSENGER NAME	Leg: 01	02	03	04	Contact
	Phone				
1.	EB				
2.	EB				
3.	EB				
4.	EB				
5.	EB				
6.	EB				
7.	EB				
8.	EB				
9.	EB				
10.	EB				
11.	EB				
12.	EB				

PNNL CUSTOMER SATISFACTION SURVEY

It is the goal of PNNL to offer you, our customer, safe, efficient, and timely air transportation. In an effort to meet this goal, we have developed this survey so that you can provide valuable feedback and help us direct future efforts. At your convenience, complete applicable sections of the survey and leave it in the aircraft or fold and mail to: Bob Hannigan, Chief Pilot, MS-K9-30, P.O. Box 999, Battelle Blvd., Richland, Washington 99352. Thank you for your assistance.

Please rate the following:

	Low				High
	1	2	3	4	5
1. Quality of passenger safety briefing	G	G	G	G	G
2. Crew appearance	G	G	G	G	G
3. Crew helpfulness	G	G	G	G	G
4. Crew courtesy and professionalism	G	G	G	G	G
5. Flight conducted in a safe manner	G	G	G	G	G
6. Airplane cleanliness and condition	G	G	G	G	G
7. Availability of desired snacks	G	G	G	G	G
8. Quality of catering	G	G	G	G	G
9. On time arrivals/departures	G	G	G	G	G
10. Overall smoothness of flight	G	G	G	G	G
11. Quality of ground services (for example, rental cars or baggage assistance)	G	G	G	G	G

Comments:

Name (optional):

Phone (optional):

Mr. Bob Hannigan, Chief Pilot
MS-K9-30
Pacific Northwest National Laboratory
P.O. Box 999, 902 Battelle Blvd.
Richland, Washington 99552

FRONT

PNNL TAKE-OFF & LANDING DATA CARDS

FROM _____
S/UP _____
T. O. _____
DATE _____

TO _____
S/DN _____
LAND _____
T. T. _____

TAKEOFF DATA

TAKEOFF G/W
V₁ _____
V_R _____
V₂ _____
V_{FS} _____
V_{REF} _____
ATIS INFO { }
WEATHER:
DEPARTURE RNWY:
NOTAMS:
T/O DISTANCE
WET OR DRY
FUEL TRIM

TORK _____

C Limit _____
L _____
E Route _____
A _____
R _____
A Dep. Inst. _____
N Altitude _____
C Freq. _____
E Transponder Code _____

LANDING DATA

LANDING WT
V_{REF} _____
V₂ _____
ATIS INFOR { }
WEATHER:
APPROACH:
LANDING:
NOTAMS:
WET OR DRY
FUEL TRIM _____ %

BACK

PNNL TAKE-OFF & LANDING DATA CARDS (contd)

TAKEOFF

WEIGHT & BALANCE

	<u>WEIGHT</u>	<u>INDEX</u>
1. Basic Op Wt.	_____	_____
2. Pax ()	_____	_____
3. Extra F Bag	_____	_____
4. Extra A Bag	_____	_____
0 FUEL WT.	_____	_____
5. FUEL	_____	_____
6. Water Meth.	_____	_____
TAKEOFF WT.	_____	_____
7. Revised GW	_____	_____

LANDING

WEIGHT & BALANCE

	<u>WEIGHT</u>	<u>INDEX</u>
8. - Burnoff	_____	_____
LANDING WT.	_____	_____

PNNL AIRCRAFT DISCREPANCY CARRY-OVER LOG

REGISTRATION NO	MAKE:	MODEL:	S/N:	APU CLOCK HR:	AIRFRAME HR:	AIRFRAME LDGS:	PAGE	OF	
N701BN	GAC	159	074				DATE OPENED:	DATE CLOSED:	
ITEM NO.	DISCREPANCY							MECHANIC:	
ENTERED BY								INSPECTOR:	
DATE	CORRECTIVE ACTION:							ACFT HOURS:	ACFT LANDINGS:
								DATE:	STATION:
ITEM NO.	DISCREPANCY							MECHANIC:	
ENTERED BY								INSPECTOR:	
DATE	CORRECTIVE ACTION:							ACFT HOURS:	ACFT LANDINGS:
								DATE:	STATION:
ITEM NO.	DISCREPANCY							MECHANIC:	
ENTERED BY								INSPECTOR:	
DATE	CORRECTIVE ACTION:							ACFT HOURS:	ACFT LANDINGS:
								DATE:	STATION:
ITEM NO.	DISCREPANCY							MECHANIC:	
ENTERED BY								INSPECTOR:	
DATE	CORRECTIVE ACTION:							ACFT HOURS:	ACFT LANDINGS:
								DATE:	STATION:
ITEM NO.	DISCREPANCY							MECHANIC:	
ENTERED BY								INSPECTOR:	
DATE	CORRECTIVE ACTION:							ACFT HOURS:	ACFT LANDINGS:
								DATE:	STATION:

PROTOCOL FOR PNNL FLIGHT OPERATIONS

The PNNL project/technical manager shall prepare a statement of work describing the proposed flight operation and a justification for the use of aircraft/helicopter to accomplish mission needs. The statement of work shall include, but not be limited to, the following information:

- DOE Task Order for which the work will be performed
- Name and phone number of project/technical manager
- Specification for the reason such work requires aviation activity
- Estimated start and end dates of the flight operation
- Area to be flown (that is, Hanford, U.S., Canada)
- Estimated total flight hours and operations budget
- Type of aircraft/helicopter requested
- Minimum/maximum altitude required of the aircraft to complete mission
- Flight conditions (Visual Flight Rules or Instrument Flight Rules; day or night)
- Required unusual flight maneuvers
- Number of PNNL staff in the aircraft and justification for their participation
- Proposed route of flight plan (location, altitude, pattern, maneuvers, and duration of flight).

The PNNL Aviation Safety Point of Contact (ASPOC) shall review the statement of work and make a determination as to whether the proposed operation is a normal or above normal risk flight operation. If the ASPOC decides the operation is above normal risk, as determined by the RL Aviation Manual (Appendix 5, Safety Plan), the RL Aviation Safety Committee (ASC) must approve the operation prior to the start of flight operations. If the ASPOC considers the operation to be normal, the ASPOC can approve the operation and must notify the RL Aviation Safety Office (ASO) of the flight details prior to the start of operations. The notification to the RL ASO must include:

- Description of flight
- Proposed date of flight
- Purpose of flight
- Statement indicating the flight operation meets the requirements of the DOE Aviation Operation Checklist for Charter Aircraft that follows this Protocol Statement
- Name of technical contact for the operation
- Approval of PNNL ASPOC.

When the PNNL ASPOC determines an operation is above normal risk, the ASPOC must submit the Aviation Safety Plan/Risk Assessment document to the RL ASC for approval. The document must be submitted to the ASC at least 30 days in advance of the date of the proposed flight operation. The RL Aviation Manual defines above normal risk flight operation as:

- Flights below 500 feet above ground level for fixed wing or rotary wing aircraft
- Night flights that are conducted in single engine aircraft with a single pilot, and in helicopters without radar altimeters
- Fixed wing aircraft operating at air speeds that are within 10-knots of published stall speeds for all flight regimes; flights that require maneuvering that involves abrupt changes in attitude, abnormal acceleration, or any flight configuration that is not considered within normal flight parameters
- Operations conducted in close proximity (500 feet horizontally) of power lines and other structures requiring high-clearance, such as stacks and towers
- Flights that require 14 CFR 91.119 altitude waivers
- Helicopter operations that require hovering for 10 minutes or more at altitudes of 100 feet or higher above ground level
- Flights that carry or dispense hazardous chemicals/material or transport radioactive materials
- Any other unusual flight activities; such as a hostile political situation and wildlife herding or darting

The PNNL ASPOC must prepare an Aviation Risk Assessment/Safety Plan prior to performing any flight operations. This document must include the Aviation Safety Committee's approved DOE Aviation Operations Checklist for Charter Aircraft. This checklist ensures that both the aviation operation and the contractor performing the flight operation are in compliance with DOE Order 440.2.

A minimum of two days prior to the planned overflight of the Hanford site, the ASPOC shall notify Safeguards and Securities Services at PNNL. The PNNL ASPOC shall notify Hanford Patrol of the aircraft type, registration number, and color, and the estimated flight times and locations.

Prior to the operation, the PNNL ASPOC shall conduct a safety or training meeting. All persons involved in the operation shall be in attendance or on conference call. Prior to each flight, the preflight checklist shall be completed to document weather conditions, estimated departure and landing times, crew members, flight locating procedures, and training for personnel involved with the aviation operation.

In the event of an aircraft incident/accident, PNNL shall immediately notify the RL ASO, and notify the National Transportation Safety Board and the Federal Aviation Administration, as required.

An aircraft incident/accident could include:

- A fatality or fatalities
- Lost workday injuries to crew members, ground crew, or other personnel assigned to aviation operations
- Injuries to passengers or the general public
- Downtime for aircraft
- An explosion or fire involving an aircraft
- Substantial damage to property, and to classified, radioactive, high explosive, or other hazardous cargo.

PNNL's AVIATION OPERATIONS CHECKLIST CHARTER AIRCRAFT

Charter/Lease Operator: _____

Date: _____ Location: _____

Certified to Operate Under 14 CFR Part: _____

This checklist is to assure that the planned use of charter/lease aircraft meets the requirements of DOE Order 440.2, Aviation, and RLIP 440.2, Aviation Safety. If there are any responses marked no or NA (for not applicable), justification must be attached. Such a response may require the review and approval of the DOE-RL aviation safety committee.

- | | Yes | No | NA |
|---|-----|-----|-----|
| 1. The aviation services contractor or subcontractors shall hold Air Carrier, Commercial Operator, or other appropriate certificates under 14 CFR Parts 91, 121, 125, 129, 133, 135, 137, and 145 as applicable for the types of operations being conducted. The specifications and ownership of the prospective aircraft shall be listed on the Operating Specification. | [] | [] | [] |
| Verification document(s) attached | [] | | |
| 2. Multi-engine modern aircraft shall be utilized unless project-specific requirements call for single-engine aircraft. | [] | [] | [] |
| Multi-engine | [] | | |
| Single-engine | [] | | |
| 3. Flight crews shall include a minimum of two qualified pilots on multi-engine aircraft. | [] | [] | [] |
| 4. Minimum pilot in command (PIC) qualifications are: | | | |
| FAA Commercial Pilot Certificate [Airline Transport Pilot Rating (ATP) desired] with appropriate category and class rating. | | | |
| Commercial: | [] | | |
| ATP: | [] | | |
| A second-class medical certificate is required. | | | |
| First Class: | [] | | |
| Second Class: | [] | | |

PNNL's AVIATION OPERATIONS CHECKLIST CHARTER AIRCRAFT
--

- | | Yes | No | NA |
|---|-----|-----|-----|
| 5. Minimum flight experience is: | [] | [] | |
| 1200 hours in category | [] | [] | |
| 100 hours in class | [] | [] | |
| 100 hours PIC in category during the previous 12 months | [] | [] | |
| 25 hours PIC in make and model of aircraft, 10 hours of which shall have been within the preceding 6 months | | | |
| Pilots should be named in the operating specifications of the aviation services contractor and certified for the specific types of operations to be conducted. | | | |
| 6. Pilots shall be full-time employees or listed on the aviation operator's operations specifications | [] | [] | |
| Verification document(s) attached | [] | [] | |
| 7. The co-pilot, when one is required, shall be instrument rated | [] | [] | [] |
| 8. The charter operator and pilots shall be fully certified for types of aircraft to be used. | [] | [] | [] |
| Verification documents/attached | [] | [] | |
| 9. All aircraft shall be certified for instrument flight and equipped in accordance with applicable FAA regulations. Manufacturer and FAA minimum equipment lists will be used as required. | [] | [] | [] |
| Verification documents/attached | [] | [] | |
| 10. All aircraft, except military aircraft, shall be certified by FAA. | [] | [] | [] |
| Verification documents/attached | [] | [] | |
| 11. Operator-owned aircraft, not leased aircraft, shall be used whenever possible. | [] | [] | [] |
| Verification documents/attached | [] | [] | |
| 12. If research-oriented flying or an FAA waiver is required, the flight crew, to the extent possible, must have logged 5 hours within the preceding 30 days in the make and model of aircraft to be flown. At least two of the five hours will be project-specific type of flying. | [] | [] | [] |

PNNL's AVIATION OPERATIONS CHECKLIST CHARTER AIRCRAFT
--

- | | Yes | No | NA |
|---|-----|-----|-----|
| 13. When the installation of any additional equipment is required, the aviation operator shall have the appropriate exemptions or permits from the FAA. | [] | [] | [] |
| 14. The charter operator shall have full control over the aircraft maintenance and all aircraft shall be maintained in accordance with applicable FAA regulations. | [] | [] | [] |
| Verification documents/attached. | [] | [] | |
| 15. Training programs shall meet, to the extent possible, the requirements of 14 CFR Parts 121 or 135 for both flight and ground personnel. | [] | [] | |
| 16. The charter operator shall provide a suitable flight and ground crew training program for the safe handling of the types of materials and cargo to be transported. | [] | [] | [] |
| 17. Contract provisions require that, prior to research-oriented flying, there shall be a safety meeting held that will include the project leader, the charter operator's flight crew, Safety, and all personnel associated with the flight, including ground personnel. Documentation to be provided to file. | [] | [] | [] |
| 18. Contract provisions require the charter pilot and technical administrator to document each flight using the aircraft preflight checklist and safety meeting documentation. Documentation is to be provided to file. | [] | [] | [] |
| 19. Certain special safety requirements may be necessary for air shipments of radioactive cargo and other special cargo. | [] | [] | [] |
| 20. The aviation operator shall have a survival kit (when required) suitable for the season of the year, the terrain that flight is to be conducted over, and other environmental conditions. Also there shall be a first aid kit of adequate capacity and a suitable fire extinguisher on board the aircraft. | [] | [] | |
| 21. On research flights, the charter operator shall, to the extent possible, provide shoulder-harness-type seat belts. | [] | [] | [] |

PNNL's AVIATION OPERATIONS CHECKLIST CHARTER AIRCRAFT
--

- | | Yes | No | NA |
|---|-----|-----|-----|
| 22. On research flights, PNNL line management will be notified of each flight and track location and expected takeoff and landing times. If the aircraft crew has not notified line management within one hour after the expected landing time, emergency procedures will be implemented. | [] | [] | [] |
| 23. When research-oriented flying is conducted below 2000 feet AGL, the charter operator shall maintain obstacle maps that are updated prior to each flight. The maps indicate the height AGL of all existing obstacles to flight in the area where the operations are being conducted. | [] | [] | [] |
| 24. Insurance requirements for charter operations (a certificate evidencing this insurance is required; if the charter is for more than 30 days, special permission is required). | [] | [] | [] |

For Contract 1831 Charters:

- | | | | |
|--|-----|-----|-----|
| - Aircraft and Passenger Liability: \$5,000,000 combined single limit if 4 or fewer passenger seats; \$7,500,000 if 5 or more passenger seats (if more than 15 passenger seats, special permission is required); \$100,000 per person minimum passenger liability. | [] | [] | [] |
| - Additional Insured: PNNL should be named as an additional insured. | [] | [] | [] |
| - Hull Coverage: full coverage for the value of the aircraft. | [] | [] | [] |

For Contract 1830 Charters:

- | | | | |
|---|-----|-----|-----|
| - Bodily Injury and Passenger Liability: at least \$200,000 per person and \$500,000 per occurrence for bodily injury, other than passenger liability, and \$200,000 multiplied by the number of seats or the number of passengers, whichever is greater. | [] | [] | [] |
| - Property Damage Liability: at least \$200,000 per occurrence. | [] | [] | [] |
| - Hull Coverage: none | [] | [] | [] |

PNNL AVIATION SAFETY HAZARD REPORT

LOCATION OF HAZARD

DATE

SUBMITTED BY (Optional)

PHONE

DESCRIPTION OF HAZARD

SUGGESTED CORRECTIVE ACTION

INSTRUCTIONS: Fill out using additional sheets, if necessary. Fold, staple, and place on the Director of Flight Operations desk.

THANK YOU - for your interest in our Aviation Safety Program

PNNL AVIATION SAFETY INCIDENT/ ACCIDENT OR OFF-NORMAL EVENT OPERATIONS CHECKLIST

1. DATE: _____ TIME: _____
2. Location of emergency: _____
3. Aircraft type and number: _____
4. Crew names:
 Captain: _____
 First Officer: _____
 Other: _____
5. Number of persons involved (attach list): _____
6. Weather conditions: _____
7. Point of departure: _____
8. Aircraft malfunctions-if any: _____
9. Crew members will secure the scene to allow accurate documentation of conditions associated with the event and provide a written narrative of all pertinent facts relating to and describing the incident/accident or off-normal event . Whenever possible photograph the scene (with reference objects, e.g., pencil for dimensional perspective).
10. Follow-up notifications:
 - A. PNNL Emergency #: 509-375-2400
 - B. Director of Flight Operations:
 R.V. Hannigan
 Home: 509-943-1777
 Office: 509-372-6176
 - C. Scheduler:
 W.R. Barchet
 Home: 509-375-6074
 Office: 509-372-6158
 - D. Agencies (as required):
 FAA: 614-237-1039
 NTSB: 614-237-1039
 Police: 911 or 509-943-7340

PNNL EMERGENCY NOTIFICATION CHART

X = Notify immediately
 O = Notify within 24 hours
 N = Notification not required

	PNNL Emergency	Director of Flight Operations	Scheduler	FAA	NTSB	Police	DOE-RL	BCO
Aircraft Accident	X	X	X	X	X	X	X	X
Aircraft Overdue or Believed Involved in Accident	X	X	X	X	X	X	X	X
Fatal Injury	X	X	X	X	X	X	X	X
Serious Injury	X	X	X	X	X	X	X	X
Flight Crew Member Injury or Illness on Duty	N	X	X	O	O	N	N	N
Substantial Damage	N	X	X	X	X	X	X	X
In-Flight Fire	N	X	X	X	X	N	X	X
Engine or Flight Control Failure	N	X	X	X	X	N	X	X
Bomb Threat or Hijacking	X	X	X	X	X	X	X	X
Aircraft Ground Damage	N	X	X	X	N	N	N	X
Engine Shutdown	N	X	X	O	N	N	N	X
Substantial System Malfunction	N	X	X	O	N	N	N	N
Diversion	N	O	X	N	N	N	N	N

PNNL Emergency #:
509-375-2400

Director of Flight Operations
Bob Hannigan
Home: 509-943-1777
Office: 509-372-6176

Scheduler
Rich Barchet
Home: 509-375-6074
Office: 509-372-6158

Agencies:
FAA: 614-237-1039
NTSB: 614-237-1039
Police: 911 or 509-943-7340

DOE-RL/A&E:
Aviation Safety Officer
Gerry Bell
509-376-0680

BCO, VP, ESH&Q
Frank Hood
Home: 614-876-8509
Office: 614-424-4181

PNNL AIRCRAFT MAINTENANCE STATUS

Type of Aircraft Utilized: _____ Date: _____

Aircraft Registration No.: _____

I. The maintenance status of the above named aircraft is as follows:

<u>Inspections :</u>	Total Time of Airframe _____	
	Aircraft Landings _____	
Total Time on Engine (LE)	SMOH _____	TBO _____
Total Time on Engine (RE)	SMOH _____	TBO _____
Total Time on Left Prop	SMOH _____	TBO _____
Total Time on Right Prop	SMOH _____	TBO _____
Computerized Maintenance Program Completed through	Calendar _____	Hourly _____
ELT Battery	Last C/W Date _____	Next Due _____
Altimeter FAR 91.411 Check	Last C/W Date _____	Next Due _____
Static System Check	Last C/W Date _____	Next Due _____
Transponder Check	Last C/W Date _____	Next Due _____
Encoder Check	Last C/W Date _____	Next Due _____
Fire Exting. Check Due	Last Date _____	Next Due _____
Fire Exting. Check Monthly	Last Date _____	Next Due _____
Airworthiness Directives	_____	_____

Weight & Balance Data:

Basic Operating Weight _____	Arm _____	Moment _____
Useful Load With Fuel _____	Useful Load Without Fuel _____	
Max Takeoff Weight _____	Max Forward CG _____	Max AFT CG _____
Max Landing Weight _____	Max Forward CG _____	Max AFT CG _____
Min Landing Weight _____	Max Forward CG _____	Max AFT CG _____

Name: _____

Title: _____

Print Signature: _____

Date: _____ / _____ / _____

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION—FEDERAL AVIATION ADMINISTRATION
STANDARD AIRWORTHINESS CERTIFICATE

1 NATIONALITY AND REGISTRATION MARKS N-701BN	2 MANUFACTURER AND MODEL GRUMMAN / G-159	3 AIRCRAFT SERIAL NUMBER 74	4 CATEGORY TRANSPORT
--	---	-----------------------------------	-------------------------

5 AUTHORITY AND BASIS FOR ISSUANCE

This airworthiness certificate is issued pursuant to the Federal Aviation Act of 1958 and certifies that as of the date of issuance, the aircraft to which issued has been inspected and found to conform to the type certificate thereof to be in condition for safe operation and has been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex B to the Convention on International Civil Aviation except as noted herein
Exceptions

NONE

6 TERMS AND CONDITIONS

Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator, this airworthiness certificate is effective as long as the maintenance, preventative maintenance, and alterations are performed in accordance with Parts 21, 43, and 91 of the Federal Aviation Regulations, as appropriate, and the aircraft is registered in the United States

DATE OF ISSUANCE 2-21-92	FAA REPRESENTATIVE  FLOYD W. GASTON	DESIGNATION NUMBER ANM-02
-----------------------------	---	------------------------------

Any alteration, reproduction or misuse of this certificate may be punishable by a fine not exceeding \$1000 or imprisonment not exceeding 3 years or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS

FAA Form 8100-2 (8-82)

*U.S. GPO: 1989-662-87

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION—FEDERAL AVIATION ADMINISTRATION
SPECIAL AIRWORTHINESS CERTIFICATE

A	CATEGORY/DESIGNATION	RESTRICTED	
	PURPOSE	ATMOSPHERIC RESEARCH	
B	MANU- FACTURER	NAME	N/A
		ADDRESS	N/A
C	FLIGHT	FROM	N/A
		TO	N/A
D	N-701BN	SERIAL NO.	74
	BUILDER GRUMMAN	MODEL	G-159
E	DATE OF ISSUANCE	2-21-92	EXPIRE UNLIMITED
	OPERATING LIMITATIONS DATED	2-21-92	ARE A PART OF THIS CERTIFICATE
	SIGNATURE OF FAA REPRESENTATIVE  FLOYD W. GASTON	DESIGNATION OR OFFICE NO. ANM-02	

Any alteration, reproduction or misuse of this certificate may be punishable by a fine not exceeding \$1,000 or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS.

FAA FORM 8130-7 (10/82)

SEE REVERSE SIDE

Operations Limitations – Aircraft Multiple Airworthiness

As shown in the airworthiness certificate example in Appendix A, the G-1 has been certified in both the standard and the restricted categories under the multiple certification provisions of FAR Part 21.187. While in the restricted classification of airworthiness, the aircraft will be operated for atmospheric research with the following rules applied.

01. Operations involving this aircraft in any other use are prohibited unless the airworthiness certificate and these operations are amended in accordance with the provisions of FAR Part 21.
02. This aircraft shall not be operated in any manner which will endanger public life and property. The operator shall adjust the takeoff weight to provide a safe margin of performance for the existing operation conditions, considering the takeoff area, altitude, temperature, and terrain.
03. Aerobatic maneuvers are not permitted.
04. These operations shall not be conducted over densely populated areas, in congested air lanes, or in the vicinity of busy airports where passenger transport operations are being conducted unless the Administrator (FAA) finds it in the public interest to authorize such operations.
05. Persons and cargo shall not be carried for compensation or hire.
06. Persons other than the minimum crew necessary for the operations shall not be carried during these operations (MAXIMUM 7 PERSONS).
07. The RESTRICTED placard must be displayed conspicuously at the cockpit entrance. (Minimum 2-inch letters.)
08. When operations are conducted in the standard category, the operations limitations specified in the FAA approved airplane flight manual shall be observed. The limitations above apply to the aircraft when it is in the restricted category configurations, being used for special purpose operations.
09. This aircraft may be converted from the restricted to the standard category of airworthiness and vice-versa by a certificated mechanic without further inspection or an approval of the FAA. Prior to the carriage of passengers or students for hire, the aircraft must be converted to the standard category of airworthiness, inspected and found airworthy in accordance with FAA policies established in FAR Part 21.187. This aircraft must be converted from standard to restricted classification or vice-versa in accordance with the conversion instructions as outlined on the major repair and alteration FAA Form 337 covering installation of the equipment on the aircraft.

REGISTRATION NOT TRANSFERABLE

UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION – FEDERAL AVIATION ADMINISTRATION CERTIFICATE OF AIRCRAFT REGISTRATION		This certificate must be in the aircraft when operated.
NATIONALITY AND REGISTRATION MARKS N 701BN	AIRCRAFT SERIAL NO. 74	
MANUFACTURER AND MANUFACTURER'S DESIGNATION OF AIRCRAFT GRUMMAN 6-159		
I S S U E D T O	BATTELLE PACIFIC NW LABORATORIES PO BOX 999 RICHLAND WA 99352	
	CORPORATION	
It is certified that the above described aircraft has been entered on the register of the Federal Aviation Administration, United States of America, in accordance with the Convention on International Civil Aviation dated December 7, 1944, and with the Federal Aviation Act of 1958, and regulations issued thereunder.		 U.S. Department of Transportation
DATE OF ISSUE OCT. 29, 1987	 Administrator	

AC Form 8050-3 (1-85)

FLIGHT OPERATIONS REQUEST	
DOE Task Order Number for which work is to be performed: _____ Date Submitted: _____	
Project Manager: _____ Telephone #: _____ Approved: _____	
Technical Manager: _____ Telephone #: _____	
Project Dates From: _____ To: _____	Estimated Total Flight Hours: _____
	Estimated Flight Operations Budget: _____
General area to be flown (i.e., Hanford, Boston, New York): _____	
Justification for Aircraft Use	
Describe why flight operations are required: _____ _____	
Identify any of the following above-normal risk operations that will be required:	
<input type="checkbox"/> Flight less than 500 feet above ground level for either fixed wing or rotary wing aircraft. <input type="checkbox"/> Night flights that are conducted in single engine, single pilot aircraft, or in helicopters without radar altimeters or ground proximity warning equipment. <input type="checkbox"/> Fixed wing aircraft operating at airspeeds that are within 10 knots of published stall speeds and flights that require maneuvering that involves abrupt changes in altitude, abnormal acceleration or any flight configuration that is not considered within normal flight parameters. <input type="checkbox"/> Operations to be conducted in close proximity (500 feet horizontally) of power lines and other high-clearance-required structures. <input type="checkbox"/> Low flights over populated areas (require 14 CFR 91.119 altitude waivers from FAA). <input type="checkbox"/> Helicopter operations that require hovering for 10 minutes or more, at altitudes of 100 feet Above Ground Level or above. <input type="checkbox"/> Flights that carry or dispense hazardous chemicals/material or transport radioactive materials. <input type="checkbox"/> Any other unusual flight activities, e.g. hostile political situation, wildlife herding or darting. If yes, please explain: _____	

Description of Flight Operations		
Purpose of Flight: _____ _____		
Flight date(s): _____ Tot. Flight time: _____	Preferred Operator: _____ Type: _____ Gulfstream-1 (e.g. 14 CFR 91, 135 public)	
Flight Condition: <input type="checkbox"/> Visual Flight Rule <input type="checkbox"/> Instrument Flight Rule <input type="checkbox"/> Night	Aircraft Type: <input type="checkbox"/> Multi Engine <input type="checkbox"/> Fixed Wing <input type="checkbox"/> Single Engine <input type="checkbox"/> Helicopter	Will aircraft need to be modified? <input type="checkbox"/> Yes <input type="checkbox"/> No
Flight Plan: _____ _____ _____		
Number of people in aircraft: Battelle _____ Others _____	Justification: _____ _____ _____	

**Pacific Northwest National Laboratory
INITIAL AIRCRAFT SUPPORT REQUEST
DOE Research Aircraft Facility**

MAIL, FAX, OR E-MAIL
COMPLETED FORM TO:

**DOE Research Aircraft Facility, MSIN K9 -30
Pacific Northwest National Laboratory
P.O. Box 999, Richland, WA 99352
Fax: 509-372-6168, Phone 372-6158
rich.barchet@pnl.gov**

1. PROJECT NAME (OR BRIEF DESCRIPTION OF MISSION)

2. DOE PROGRAM FUNDING THE ACTIVITY (SELECT ONE) UNKNOWN NON-DOE: _____

 ATMOS. CHEM. (ACP) ENVIRON. METEOR. (EMP) TROPO. AEROSOL (TAP) ATMOS. RAD. MEAS. (ARM) OTHER: _____

3. REQUESTED PROJECT DATES (INCLUDE INSTRUMENT U# /DOWN LOAD)

4. TOTAL NUMBER OF PROJECT DAYS (INCLUDE INSTRUMENT U# /DOWN LOAD)

5. REQUESTED FLIGHT HOURS

6. TYPE OF AIRCRAFT REQUESTED

GULFSTREAM 159 (G-1) OTHER: _____

7. PROJECT AREA (STAGING AREA AND AREA OF OPERATION)

8. BRIEF DESCRIPTION OF PROGRAM OR PROJECT

9. FLIGHT SCHEDULE PROFILE(S) (I.E., REQUIRED WEATHER, TIME OF DAY, DURATION, ALTITUDE, SPEED)

**FINAL REQUEST FOR AIRCRAFT SUPPORT FORM IS COMPLETED COLLABORATIVELY BY THE PI AND THE RAF.
MORE INFORMATION ON INSTRUMENTATION AND AIRCRAFT MODIFICATIONS WILL BE NEEDED THEN.**

10. IF THE DOE RAF AIRCRAFT IS UNAVAILABLE OR NOT ECONOMICAL,
DO YOU REQUEST ASSISTANCE IN LOCATING A SUITABLE AIRCRAFT
TO SUPPORT YOUR PROJECT/MISSION? (SELECT ONE)

 YES NO

11. FUNDING SOURCE: (SELECT ONE) UNKNOWN

 DOE FUNDS OTHER: _____

12. PRINCIPLE INVESTIGATOR/PRIMARY POINT OF CONTACT
(Complete address, phone, fax, Email)

13. FUNDING AGENCY/SPONSOR AUTHORIZED TO SIGN THE FINANCIAL
OPERATING PLAN (FOP) (Complete address, phone, fax, Email)

Signature/Date

Signature/Date

RESEARCH AIRCRAFT DEPLOYMENT DOCUMENT

PNNL Gulfstream G-1 Aircraft
Pacific Northwest National Laboratory
P.O. Box 999, MSIN K9-30
Richland, WA 99352
W. R. Barchet (509) 372-6158

A. PROJECT IDENTIFICATION

1. Requestor's Name:	2. Title:	3. Organization:	
4. Address:		5. Phone:	6. Date:
7. Title that describes this activity:			
8. Abstract of proposed aircraft use:			
9. Previous airborne research experience of requesting scientist:			

10. Other personnel who will participate in this activity and their responsibilities:	
11. Educational Activities: Anticipated involvement of students or other university personnel?	
12. After flight operations are complete, how much time will be required for data analysis?	
13. Where and when do you expect the results of the airborne observations to be published?	
B. RESEARCH SPONSOR	
1. Name of sponsor:	2. Contract officer name/telephone:
3. Address:	
4. Funding: <div style="text-align: center; margin-top: 10px;"> <input type="checkbox"/> Approved <input type="checkbox"/> Pending </div>	
5. Title of research project:	
6. Principal Investigator(s):	
C. OTHER AVIATION FACILITIES	
1. Will other aircraft participate in the proposed measurement program?	
2. Identify aircraft and aircraft contact person:	

3. How will aircraft be used in proposed measurement program? Describe operations relative to the PNNL aircraft.

D. FLIGHT OPERATIONS

1. Proposed flight period

From:

To:

2. Number of flights required:

3. Number of flights/hours per day

Number of consecutive flying days:

4. Estimated duration of each flight:

5. Will you require over water operations?

6. Proposed base of operations:

7. Alternate base of operations:

8. Average flight radius from base:

9. Desired flight altitudes:

10. Typical takeoff time (local time):

Length of duty day:

11. Expected number of flight days within proposed program:

12. Sketch or describe desired flight patterns, state priorities, and estimate number of flights for each (use additional sheets if needed):

Pattern No. 1:

Pattern No. 2:

13. How many scientific observers will you require on each flight?

E. SUPPLEMENTAL INFORMATION FOR COMPLIANCE WITH DOE 440.2

The aircraft is operated by PNNL for the Department of Energy in accordance with DOE Order 440.2.

1. Names, titles, and duties of personnel onboard the aircraft (do not include PNNL pilots or PNNL scientific crew):

2. Analysis of hazards associated with proposed mission(s) (e.g., unusual maneuvers, meteorological conditions, terrain, heavy air traffic areas, chemicals, voltages, heat, lasers, hazardous chemicals, radioactive materials)

3. Actions taken to mitigate associated hazards:

4. Expected flight conditions (e.g., visual flight rules, instrument flight rules, night flight, meteorological conditions):

5. Proposed deviations from Federal Aviation Regulations and justification (e.g., flights below 500 feet):

F. SCIENTIFIC PAYLOAD

1. List Details of Required Measurements Using Research Aircraft Facility Instruments and Systems:

Measurement	Range	Resolution	Data Output Rate	Priority	Remarks
Real-time Particles					
Particle size (FSSP)					
Particle size (PCASP-100X)					
Particle image (OAP-2D)					
Liquid water content (KLWC-5)					
Liquid water content (PVM-100A)					
Aerosol Light Scattering, bscat (MRI 1560/1590)					
Total/Back Scatter (Normco)					
Ultrafine Particle Concentration (TSI 3025A)					
Real-time Gases					
SO ₂ (TECO 43S)					
NO _x /NO ₂ /NO (LMA -3/LNC-3)					
O ₃ (TECO 49)					
CO (TECO 48)					
Time-Integrated Sampling					
47-mm Filter Pack (dual)					
PAN (PNNL GC/ECD)					
Canister sampler					
Radiometric Measurements					
UV irradiance (Eppley)					
Surface/Sky IR temperature (PRT-5)					

Short-wave irradiance (Eppley pyranometer)					
Long-wave irradiance (Eppley pyrgeometer)					
Spectral radiation (PNNL MFR)					
Meteorological State Variables					
Temperature (Rosemount Pt)					
Dewpoint temperature (GE 1011B)					
Absolute Humidity (AIR lyman-alpha)					
Pressure/Altitude (Rosemount absolute)					
Vector winds (Rosemount differential, GPS)					
Aircraft Variables					
Position (Loran, GPS)					
Aircraft attitude (GPS)					
Altitude (Radar)					
G. USER-SUPPLIED SCIENTIFIC PAYLOAD					
1. List requirements of user-supplied equipment (attach drawings/photos)					
Instrument	Weight (kg)	Size (19" panel or other)	Power Required (watts, amps)	Type of power (volts DC, AC, Hz)	External Sensor/Probe Requirements
2. List details of data recording requirements of user-supplied instrumentation					
Instrument	Voltage Range	Signal (analog or digital)	Resolution	Sample Rate	Remarks

3. Describe special or unusual installation requirements:

4. Describe hazardous materials required for user-supplied instrumentation (toxic gases or liquids, flammable materials, radioactive sources, other):

Material	MSDS Provided	Amount On Board (kg, liters)	On Board Usage

5. Describe hazardous wastes produced or emitted by user-supplied instruments:

Material	Amount Generated (kg, liters)	Physical Form (liquid, solid, gas)	Where Generated (ground, plane)	Provision for Management and Disposition

H. GROUND SUPPORT FACILITIES

1. Describe any field site data access/processing requirements (floppy disk, tape, network, software compatibility, etc.):

2. Describe ground support needs for user-supplied instrumentation:

On flight days:

A. Preflight needs (prior to takeoff):

Access _____ hrs.

Power _____ hrs

B. Postflight needs (after landing):

Access _____ hrs

Power _____ hrs

C. Any special support needs:

On nonflight days:

A. Routine maintenance/calibration:

Access _____ hrs

Power _____ hrs

B. Any special support needs:

3. Describe office, technical work area, storage, logistics requirements (telephones, desks, etc.):

4. Other information/remarks:

I. APPROVALS				
Requestor	Name (print)	Signatures		Date
		Approve	Disapprove	
1. PNNL Lab Safety:	R.E. Johanson			
2. PNNL Environmental Compliance Representative:	J.L.Akers			
3. PNNL Aviation Safety Point of Contact:	R.V. Hannigan			
4. Research Aircraft Facility Manager:	W.R. Barchet			

cc: PNNL Field Services Representative
PNNL Hazardous Materials Transportation