3.0 PNNL Aviation Policy and Procedures

3.1 General Policy

PNNL recommends the use of Laboratory aircraft for all research conducted from the air and the use of scheduled airlines for company business whenever air travel is required. The general policy and philosophy of PNNL flight operations is that every effort will be made to accomplish each flight within the context of safety, FAR and DOE directives, and this manual. PNNL will revise this manual, as necessary, and will keep at least one copy at the principal operations base of PNNL, 4020 Stearman Ave., Tri-Cities Airport, Pasco, Washington.

At all times, the safety of the crew, passengers, equipment, and property will be paramount over other flight objectives. Pilots are required to plan flight missions from a standpoint of safety. Rescheduling, consideration of every alternate method, or even cancellation of a research or a passenger flight is permitted should any doubt arise concerning the safe completion of a planned flight. All operations will be conducted with maximum safety, consistent with flight requirements and reasonable economy, and in full compliance with applicable FAR and this manual.

All flight crew members are responsible for compliance with the FAR and policies set forth in this manual. All aircraft flight personnel will be knowledgeable of FAR (especially FAR Parts 61, 91, and 135) and this manual and will be responsible for assuring all their activities are in compliance with these provisions. Each flight crew member is responsible for maintaining the qualifications required by the FAR and the policies of this manual for the flight position each one holds.

Flight and scientific crew members are responsible for alerting other crew members, especially the designated PIC, of any condition, occurrence, procedural error, or malfunction that may affect the safe conduct of the flight. They are also responsible for a realistic evaluation of their own physical and mental well-being as it affects their duties. Pilots are expected to use good judgment relative to obtaining adequate rest prior to flight duty. All crew members are expected to discuss with the Chief Pilot any mental or emotional stress or physical condition that may have a detrimental effect on the performance of flight duties.

The procedures and guidelines in this manual are directed toward the safe and efficient operation of PNNL flight activities. However, it is emphasized throughout this manual that pilots will exercise prudence and good judgment in all flight operations. The policies and procedures outlined in this manual apply to all PNNL aircraft operations. The PNNL Aviation Risk Management Committee can grant deviations from these procedures and guidelines when circumstances are appropriate.

3.1.1 PNNL-Owned Research Aircraft

Aircraft operated by PNNL normally will meet the requirements of standard and restricted airworthiness categories, as set forth in the FAR. See Appendix A, pages A.25 and A.27 for standard and restricted airworthiness certificates with operations limitations for aircraft with multiple airworthiness certificates and registration. In isolated instances, an experimental category may be required. This policy is consistent with that of PNNL and DOE, assuring maximum safety at a reasonable operating cost.

3.1.2 International Operations

- The Scheduler shall notify the Director of Flight Operations and Chief Pilot, as soon as possible, of international trips, so that appropriate flight crew assignments can be made.

- The Director of Flight Operations and Chief Pilot will make the crew assignments for international trips.

- The Scheduler shall also coordinate with and provide assistance to the assigned PIC to make arrangements for such a trip.

- The PIC assigned to an international trip is responsible for handling the arrangements for the trip.

3.1.3 Charter Operations

3.1.3.1 Contracting for Charter Aircraft Services

PNNL staff requesting charter aircraft services to fulfill travel or research requirements must work with the ASPOC and the Contract Specialist to place a contract with the charter service provider. All contracts for such services will be established in accordance with PNNL procurement policy.

3.1.3.2 Guidelines for Use of Chartered Aircraft

Policy - Aviation services contractors shall hold Air Carrier, Commercial Operator, or other appropriate certificates under 14 CFR Parts 91, 121, 125, 127, 133, 135, 137, and 145, as applicable for the type of operations conducted. The specifications and ownership of the prospective aircraft shall be listed on the Operating Specification.

Multi-engine modern aircraft shall be utilized unless specific requirements call for single-engine aircraft. Flight crews shall include a minimum of two qualified pilots on multi-engine aircraft.

Minimum PIC qualifications are a FAA Commercial Pilot Certificate (ATP rating desired) with the appropriate category and class rating. PIC requirements are a second-class medical certificate, 1200 hours in category, 100 hours in class, 100 hours PIC in category during the previous 12 months, and 25 hours PIC in make and model of aircraft (10 hours of which shall have been in the preceding 6 months).

Pilots should be named in the operating specifications of the aviation service contractor and certified for the specific type of operations to be conducted. The pilots shall be full-time employees of the operator unless approved by PNNL. The charter operator and pilots shall be fully certified for the types of aircraft used.

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. All aircraft, except military aircraft, shall have FAA certification. The charter operator shall have full control over aircraft maintenance, and all aircraft shall be maintained in accordance with applicable FAA directives.

PNNL-owned aircraft, not leased aircraft, shall be used whenever possible.

Training programs for charter flight and ground personnel shall meet, to the extent possible, the requirements of 14 CFR Part 121 for large aircraft (gross weight of 12,500 pounds or greater) and 14 CFR Part 135 for small aircraft (gross weight under 12,500 pounds).

The charter operator also shall provide a suitable flight and ground crew training program for the safe handling of the types of materials and cargo to be transported. Certain special safety requirements may be necessary for air shipments of radioactive cargo and other special cargo.

The charter operator shall provide a suitable survival and first aid kit on board the aircraft. Also, the charter operator, to the extent possible, shall provide shoulder-harness-type seat belts.

Insurance - The following items describe the insurance requirements for charter operations. A certificate evidencing this insurance is required

a. **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; $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.

b. **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.

Documentation - The leased or charter operator shall submit DOE's Aviation Operations Checklist Charter Aircraft (included in Appendix A, page A.17) to document compliance with these requirements to the PNNL Contracts Specialist for verification.

Contract Process - This process uses the following steps.

a. **Purchase Requisition and Statement of Work**

The PNNL staff member (Technical Administrator or TA) requiring aircraft charter services must submit a purchase requisition (PR) and a Flight Operations Request form (shown in Appendix A, page A.28, and see SBMS Aircraft Flight Operations found at http://sbms.pnl.gov/standard/12/1200t010.htm). The PR and Flight Operations Request form, when properly prepared, authorize the Contracts Specialist to initiate procurement action.

A detailed statement of work (SOW) describing the entire project must be attached to the PR. The SOW should contain as complete a description of the services required as possible, including a general discussion of the type of work, the objectives of the work, and why it is appropriate to use a chartered aircraft to perform the work.

b. **Competitive vs. Noncompetitive Procurement**

It is PNNL policy that procurement of all services be competitive to the maximum practical extent. (A noncompetitive procurement is one in which only one source is solicited.)

If the TA believes it is reasonable to expect that only one offerer could perform the work, and thus the procurement would be noncompetitive, the TA must include a sole source justification (SSJ) with the PR. The SSJ must set forth enough facts and circumstances to clearly and convincingly establish that competition is neither feasible nor practicable.

c. **Risk Management**

On receipt of the PR, the Contract Specialist will contact the ASPOC to evaluate the operation and if an above-normal-risk operation exists, the ASPOC must convene a Aviation Risk Management Committee (ARMC) to discuss the various risk factors involved with the proposed flight. The ARMC may determine the risks cannot be satisfactorily mitigated, and thus the project should not proceed further. Alternatively, the ARMC may make recommendations to mitigate all identifiable risks.

d. **Service Contract Act of 1965**

Under the Service Contract Act of 1965 (hereafter referred to as the Act), the U.S. Department of Labor (DOL) considers pilots and flight crew as service employees. Battelle has an obligation, under its operating contract with DOE, to fulfill the requirements of the Act. Therefore, Battelle must ask the Washington State Department of Labor and Industries to issue a wage determination for any

contract in excess of $25,000 requiring such services. This request for a wage determination must be made 70 days before a solicitation subject to the Act is issued. The TA must allow enough lead time to satisfy this 70-day waiting period.

If a contract is not in excess of $25,000, the clause, Service Contract Act of 1965 (Short Form), shall be used in all appropriate written solicitations or contracts.

e. **Request for Proposal**

On successful completion of the ARMC review and request for wage determination, the Contract Specialist shall issue a Request for Proposal (RFP), inviting the offerer(s) to provide proposals for the required services. Depending on the estimated dollar value and complexity of the procurement, the offerer(s) will be allowed 7 to 30 days to respond to the RFP.

f. **Proposal Evaluation**

Proposal evaluation is the assessment, if specified by the RFP, of the offerer's ability (as conveyed by the proposals) to successfully perform the SOW described by the RFP. Proposals shall be evaluated solely in accordance with the factors specified in the RFP.

As part of an overall responsibility determination, pre-award audits of one or more of the offerers' sites may be required. Such audits will often include a review of the offerer's operations, as well as the qualifications of the pilot and any other key personnel, and the maintenance and general condition of the aircraft.

In addition to the pre-award onsite audit, the PNNL ASPOC will contact, on an as-needed basis, the cognizant FAA office in order to verify that the pilot and aircraft meet current FAA regulations.

The PNNL ASPOC will meet with the Contract Specialist to review all facts ascertained regarding the offerer's operations, pilot currency, and aircraft maintenance records. The review will be conducted in accordance with DOE's Aviation Operator Checklist Charter Aircraft (Appendix A, page A.17).

g. **Cost/Price Analysis and the Technical Evaluation**

The Contract Specialist is responsible for ensuring that a fair and reasonable price is obtained for the charter aircraft services. The Specialist accomplishes this task in part by the performance of price analysis, or of cost analysis, or a combination of the two. The PNNL Cost/Price Analyst will perform these evaluations for any contracts in excess of $100,000. Otherwise, the Contract Specialist will perform the analysis.

Generally, as part of the cost/price analysis, a technical evaluation performed by the TA on the selected offerer's cost proposal will be required. It is important the TA complete this evaluation in a timely manner, as the cost/price analysis cannot be completed without it.

h. **Contract Award**

The Contract Specialist shall incorporate, as appropriate, the recommendations provided by the cost/price analysis, technical evaluation, the Environment, Safety and Health Department, the Insurance Office, the Legal Office, and the ARMC into the provisions of a contract for the charter services to the selected offerer.

i. **Contract Administration**

- Only the PNNL Contracts representative has the authority to issue a contract to authorize the commencement of any flights. No person shall attempt to arrange for or participate in any flight under a contract for flight services unless the PNNL Contracts Specialist has issued a contract.

- Staff members may request the issuance of a contract for aircraft services for which a contract is established by

  - Completing a requisition via PNNL's electronic "WEBREQ" transmission for the specific contract to be used. A SOW or itinerary shall be attached to the Work Order describing the nature of the flights requested, the flight plan to be used, and the names of the staff members to participate in the flights.

  - The requisition shall show the name of and be signed by a PNNL Line Manager who will be aware of all details associated with the flight. The staff members using the flight services shall, for each flight, ensure this Line Manager is fully aware of the time of departure, the intended flight plan, and the return time of the flight.

  - In addition to the Line Manager, the individual requesting the flight services, the cognizant financial specialist, and the ASPOC shall sign the requisition.

  - The signed requisition shall be provided to the PNNL Contracts Specialist. Prior to issuance of the contract, this Contracts Specialist shall

    1. Review the requisition to ensure the flights requested are within the contract scope and adhere to any risk management prescriptions developed for the contract that will support the contract.

    2. Unless otherwise approved by the PNNL ASPOC, request the Contractor provide a report delineating the current status of all aircraft maintenance items and pilot flight history.

    3. All items on the aircraft maintenance report and the pilot flight history must be acceptable to the PNNL ASPOC before the Work Order is issued.

j. **Post-Award Audits**

When decided necessary by the PNNL Contracts Specialist and the PNNL ASPOC, a post-award audit of the contracted charter operator shall be conducted. Such audits will generally include a review of the Contractor's operations and verification of the FAA certifications of the Contractor, as well as the qualifications of the pilot and any other key personnel, and the maintenance and general condition of the aircraft.

k. **Reporting of All Aircraft-Related Near-Misses or Any Off-Normal Events**

PNNL staff members participating in a chartered or leased aircraft flight shall, within 72 hours, notify in writing the PNNL ASPOC, the cognizant Laboratory Safety representative, and the PNNL Contracts Specialist of any near-misses or other off-normal events that occur during any phase of flight. At a minimum, the notification will contain the following information:

- The name of the contractor providing the service and the PNNL contract number
- A summary of all pertinent facts relating to and describing the near-miss or off-normal event.

l. **Other Factors** - Contract Requirements for Research Flight Operation

TAs must be aware of the following items contained in contracts for research flights. By fully executing the contract, the charter service operator has agreed to abide by these terms. All TAs are also expected to abide by these terms.

- During the operation of the flights described here, the PIC of the aircraft shall have complete authority over all aircraft operations. PNNL staff members are not authorized to change the parameters of the flight in any way that would jeopardize the safety of the passengers and crew.
- Prior to the first flight under this contract, a safety meeting must be held that includes the TA, a Safety representative, the flight crew, and all PNNL and Contractor personnel associated with the flight, including ground personnel. In addition, prior to all subsequent flights under this contract, the TA, the flight crew, and all personnel associated with the flight, including ground personnel, shall hold a safety meeting and review all aspects of the flight mission.

- Emergency Responses: In case of an emergency involving a flight chartered by PNNL, the Contractor shall immediately contact the PNNL Emergency Phone Number at (509) 375-2400. At the earliest possible time thereafter, the Contractor should also notify the ASPOC.

- The TA will inform the Contract Specialist of the cognizant Line Manager who will be knowledgeable of all flights that occur under the contract (such as, when the TA has left for a flight, when they are due back). The Contract Specialist shall clearly identify in the contract file the Line Manager's name and telephone number. The Contract Specialist shall designate, in writing, this individual as the point of contact (POC) cognizant of all flights to occur under the contract.

3.1.4 PNNL Internal Self-Assessment

At least annually, one or more line mangers to whom the Director of Flight Operations, the Chief Pilot, and the Director of Maintenance report will conduct a self-assessment of PNNL aircraft operations using the checklist for research aircraft operations presented in Appendix A, page A.40. This checklist covers many aspects of research flight operations and maintenance and verifies compliance with the provisions of MA-530, applicable DOE Aviation Orders, and OSHA and FAA regulations. Similar checklists are used by the PNNL Aviation Safety Point of Contact and DOE Aviation Safety Official to audit providers of charter aircraft services (see Section 3.1.3.2). A signed and dated copy of the completed checklists will be retained by the Director of Flight Operations for a period of three years.

3.2 Safety Procedures/Policy

The following figure illustrates the aviation safety drivers at PNNL. Responsibilities and accountabilities are shown next in the aviation safety table.

3.2.1 Safety Program Goals

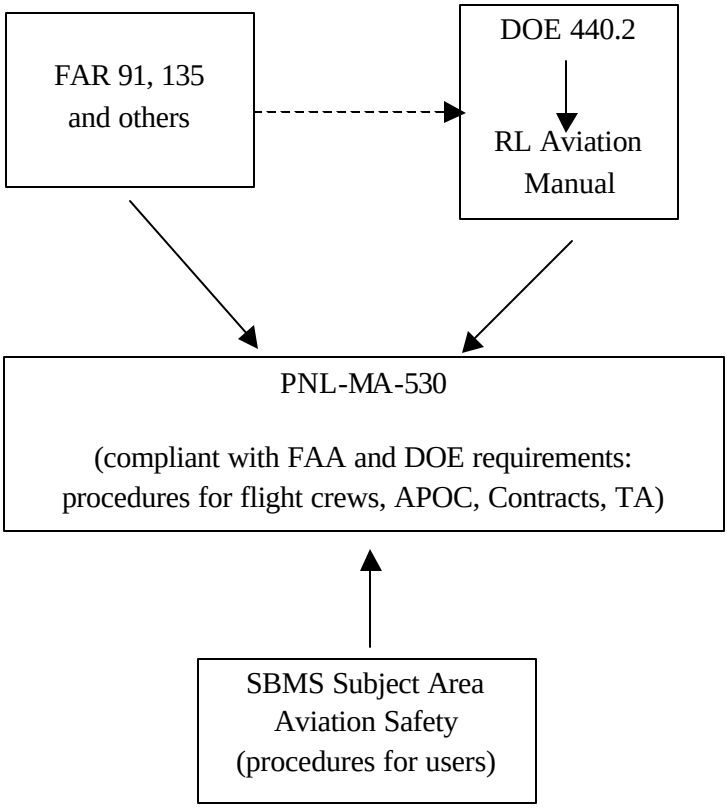
It is the responsibility of every PNNL employee involved with the G-1 aviation activities to understand and help achieve the following safety goals:

- Provide a safe and healthful working environment for all employees.
- Prevent aviation accidents.
- Minimize damage and severity of injury resulting from aviation mishaps.
- Incorporate safety aspects into flight and maintenance operations planning.
- Reduce operating costs and increase mission capability by protecting human and material assets.
- Eliminate hazardous conditions.

3.2.2 Aviation Safety Policy

- PNNL supports all requirements of law regarding aircraft safety and intends to provide all employees with a safe and healthful working environment.
- Every attempt will be made to prevent accidents and reduce the effects of accidents that may occur.
- The Director of Flight Operations and the Director of Maintenance will establish and maintain a program that helps identify/manage risks and hazards.

Aviation Safety Drivers



Aviation Safety

Roles	Responsibilities/ Authorities	Accountabilities
Hawker Chief Pilot	Flight Operations	BMI
G-1 Chief Pilot		FSD
Technical Administrator/Project Manager	Project Management	Product Line Manager
Aviation Risk Management Committee Chairman of ARMC Aviation Safety Point of Contact Contracts Specialist Finance/Insurance ES&H Representative Legal Counsel Quality Engineer	Risk Management	Lab Director
Director of Flight Operations	Oversight	FSD Director

- The PNNL aircraft safety program will include all aspects of flight and maintenance safety.

- Responsibility for implementing the safety program rests with the Director of Flight Operations and the Director of Maintenance.

3.2.3 Accident Prevention Program

The aviation safety program is composed of three elements. They are standardization, compliance, and hazards identification.

- Standardization is an ongoing responsibility of all personnel associated with aviation activities.

- Compliance with safety policies, procedures, and practices as spelled out in this manual, the FAR, and manufacturer's manuals is the responsibility of all aviation personnel. The Director of Flight Operations is responsible for annually inspecting the organization for compliance.

- The Hazard Identification System is both an informal and a formal reporting system. Aviation personnel are expected and encouraged to inform their manager of a hazard.

3.2.4 Safety Reporting System

3.2.4.1 Hazard Report

- Personnel may fill out a PNNL Aviation Safety Hazard Report form (Appendix A, page A.21). All PNNL employees use this form to report any hazard in their work area. The completed form may also be used as an equipment deficiency report.

- This report is sent to the Director of Flight Operations and the sender can remain anonymous. The Director of Flight Operations assures the confidentiality of the Hazard Report.

- It is the responsibility of the Director of Flight Operations to respond to all Hazard Reports.

- Inspections regarding hazard elimination are also the responsibility of the Director of Flight Operations.

3.2.4.2 Aviation Safety Incident/Accident or Off-Normal Event Operations Checklist

This checklist form is located in Appendix A, page A.22. The form is intended to provide crew members with an on-site checklist should they be involved in an incident. The Emergency Notification Chart is also located in Appendix A, page A.23.

The Director of Flight Operations is responsible for recording and tracking incidents, accidents, or off-normal events. The Emergency Notification Chart serves as a guide for the type of incidents that are tracked.

3.2.4.3 Incident/Accident or Off-Normal Event Forms

The PNNL Aviation Safety Incident/Accident or Off-Normal Event Worksheet (Appendix A, page A.22) is intended to provide the basic information needed for an investigation of an incident, accident, or off-normal event. Additional information may be requested of flight and scientific crew if an investigation of the incident, accident, or off-normal event by PNNL, DOE, or the NTSB is required.

The Incident/Accident or Off-Normal Event Report is submitted to the Director of Flight Operations. After reviewing the recommendations, the Director and his staff will develop specific tasks to address certain recommendations.

3.2.4.4 Information Distribution System

The Director of Flight Operations distributes general safety information on a continuing basis to all applicable PNNL employee groups.

3.2.5 Safety Education and Training

Safety-related training for aviation employees is the joint responsibility of the Director of Flight Operations, Chief Pilot, and Director of Maintenance.

The priority for receiving safety training is:

1. Director of Flight Operations
2. Chief Pilot
3. Director of Maintenance
4. Flight crew members and other staff
5. Customers (passengers).

3.2.6 Specialized Training

3.2.6.1 Flight Operations

Training will be provided on a continuing basis on topics such as wind shear, air traffic control procedures, seasonal weather, survival equipment, hazardous materials handling (as needed), first aid, and medical aspects for aviators. The Director of Flight Operations will manage these elements of training.

3.2.6.2 Maintenance

Specialized maintenance training will be provided on a continuing basis on topics such as hazardous materials handling (as needed), special equipment operation, Occupational Safety and Health Administration (OSHA) requirements, first aid, and other relevant topics. The Director of Maintenance manages these elements of training. The Director of Flight Operations retains training oversight.

3.2.7 Accident Notification and Investigation

3.2.7.1 Incident/Accident or Off-Normal Event Notification

The hierarchy of responsibility for notifying PNNL, DOE, the FAA, or the NTSB of an incident/accident or off-normal event is 1) the Captain/PIC, 2) the First Officer, 3) the Director of Flight Operations, and 4) the Scheduler. The Emergency Notification Chart in Appendix A, page A.23 shows which agencies must be notified for different types of incidents. Other than this notification, the flight crew will not make any statements until they have an opportunity to recover fully from shock, review the details of the event in a thoughtful manner, and seek competent legal counsel. The flight crew will not discuss the incident/accident or off-normal event with or make a statement to the media.

3.2.7.2 DOE and NTSB Accident Investigations

The Director of Flight Operations will be the principal PNNL contact with DOE or NTSB investigators and will submit to external investigators and PNNL management a complete Incident/Accident or Off-Normal Event Report (Appendix A, page A.22). The report shall follow the International Civil Aviation Organization (ICAO) format as closely as possible and include:

- History
- Analysis
- Findings
- Recommendations and Actions.

3.2.7.3 PNNL Accident Investigations

For an incident or accident or off-normal event for which no DOE or NTSB investigation is required, the Director of Flight Operations, with participation by the PNNL Laboratory Safety Department, will conduct a root cause analysis that:

- Uses an expert team with skills needed to thoroughly assess an event—depending on the significance (e.g., life threatening) of an incident/accident or off-normal event, to issue direction to secure the scene to allow accurate documentation of conditions associated with the event, and to allow an investigative team to observe those conditions. Whenever possible photograph the scene (with reference objects, e.g., pencil for dimensional perspective) and provide a written narrative describing conditions associated with an event.

- Defines the basic problem/effect that is to be prevented from recurring.

- Uses cause and effect process analysis to define the root cause and alternative solution(s).

- Assesses the risks with solution implementation.

- Incorporates root cause solutions through process improvement(s).

- Measures success of process performance/productivity improvement.

3.2.8 Drug Testing - Flight and Maintenance Crew Members (FAR 135.251, Part 121, Appendix I)

Testing of PNNL staff for prohibited drugs will be done when the crew members receive their annual aviation medical, and paid for by PNNL. Test results are to be provided promptly by the crew member to the Director of Flight Operations.

3.2.8.1 Flight Crew Use of Non-Prescription Drugs

Certain drugs and narcotics in common use sometimes have a marked effect on the nervous system and can be highly detrimental to flight crew members' ability to function properly. Even common cold remedies, nose sprays, antihistamines, sulfa, and streptomycin can have adverse side effects. Crew members should ask their doctors if a drug they have prescribed would have an effect on judgment or flying ability. Other than simple aspirin, all nonprescription drugs are suspect and should be evaluated before use.

3.2.9 Alcoholic Beverages (FAR 135.121)

Consumption of alcoholic beverages by flight crew members on duty, or within the time period specified by the FAR prior to a scheduled flight, shall be cause for immediate dismissal. The greater the quantity of alcohol consumed, the longer the period of time required to eliminate its lingering effect. Personal discretion and good judgment shall be the primary considerations for flight crew personnel.

No flight crew member will partake of alcoholic beverages of any kind while on duty or within 12 hours of anticipated flight duty (FAR 91.17). Accepting flight duty when intoxicated or when suffering from the aftereffects of alcohol consumption will be grounds for immediate dismissal.

Except in an emergency, the pilot of a PNNL aircraft may not allow a person who appears to be intoxicated, or who shows physical indications of being under the influence of drugs (except a medical patient under proper care), to be carried in that aircraft.

On request of a law enforcement officer, a PNNL flight crew member must submit to a test for the alcohol percentage by weight in the blood, whenever the law enforcement officer is authorized under state or local law to conduct the test or to have the test conducted.

3.2.10 Smoking

Smoking is prohibited on PNNL aircraft.

3.2.11 Blood Donations

Flight crew members who have donated blood will not perform flight duties for at least 72 hours after that blood donation.

3.2.12 FAA Enforcement Actions

Upon notification that an enforcement investigation has been initiated against a PNNL aviation staff member or contracted staff member, that staff member has 48 hours to report to the Director of Flight Operations the full facts surrounding the event that precipitated the enforcement action. The staff member named in the action may be removed from duty at the discretion of the Director of Flight Operations.

PNNL will investigate the violation to determine the facts associated with the event. Legal assistance will be provided to the staff member who acted in good faith and in the best interests of PNNL, its property, and passengers.

3.2.13 Flight and Maintenance Crew Duty/Rest Limits (FAR 135.267)

Flight time and duty time limitations, as set forth in FAR Part 135, are based on experience factors accumulated by the FAA, safety studies, and the various air carriers. Duty time for the flight and maintenance crew starts when leaving their place of residence and ends at the return to their place of residence. Flight time begins with engine start and ends with engine stoppage. The safety of PNNL flight operations and the concentration necessary for the effective completion of aircraft operations requires pilots who are rested and alert. Pilots who have exceeded their flight and duty time limitations will not be scheduled for flight, except in an emergency or other extenuating circumstances.

A pilot shall not be assigned, nor will accept, any flight duty if that duty will cause the crew member's total flight time to exceed the following time limitations. During any consecutive 24 hours the following limitations apply. For single-pilot operations, the limits are 8 hours of flight time or 12 hours duty time; for two-pilot operations, 10 hours of flight time or 12 hours duty time. In addition, crew members must

be provided with 10 consecutive hours of rest within the 24 hours preceding the completion of that flight duty. (Refer to Appendix F for charts defining these regulations.)

If a pilot anticipates exceeding flight time limitations while away from home base, the pilot will inform the Chief Pilot of his or her physical condition and request relief or an authorization to extend the limitation. In the event it is mutually agreed, the Chief Pilot may authorize the pilot to complete the flight.

A Maintenance Technician will work no more than 12 continuous hours in any 24-hour period. The minimum acceptable rest period following a duty period is 8 continuous hours. Each Maintenance Technician should be relieved from all duty for at least one period of 24 continuous hours during any 7 consecutive days.

3.2.14 Crisis Planning

Notification to PNNL of an accident involving a PNNL aircraft in which a fatality or serious injury has occurred is normally made by the state or local police department in the area where the accident happened. The flight crew, if not incapacitated, must assume control of the accident site and, as soon as practical, call the PNNL emergency number 509-375-2400. When notified by any party, the Director of Flight Operations or the Scheduler will immediately report the accident to the PNNL Emergency Number. A call to the PNNL Emergency Number initiates the PNNL occurrence reporting/notification procedure that includes further notifications to DOE, NTSB, or FAA, as appropriate (see the PNNL Emergency Notification Chart in Appendix A, page A.23). That call also brings the resources of PNNL Public Relations, Insurance, Legal, and Human Resources departments to bear on addressing the ramifications of the accident on PNNL staff, their families, and other parties affected by it.

3.2.15 Security

3.2.15.1 Planning

The PIC must ensure that destination airports and surroundings for a planned flight do not present a threat to safety or security. This recommendation is particularly true of international flights to destinations that have a poor reputation for safety and security. PNNL security should be contacted prior to any international flight to check for unusual or hazardous situations that may impact the security of a planned flight.

3.2.15.2 Security Considerations

In order to reduce the possibility of sabotage, extortion, and hijacking, certain operational procedures shall be strictly adhered to and shall be the equal responsibility of each crew member assigned to the aircraft. The PNNL Research Aircraft Preflight Security Checklist (Appendix A, page A.4) must be completed. For PNNL aircraft, cargo, and passengers to meet required security conditions, all of the following rules shall apply:

1. The destination and occupants of PNNL aircraft shall be considered need-to-know information. Therefore, your conversations shall not include whom you took and where.

2. Positive identification shall be obtained on all passengers. Luggage must be tagged with the name of its owner.

3. Unauthorized personnel shall not be allowed in the aircraft and shall be monitored when in the vicinity of any PNNL aircraft.

4. Avoid discussing your schedule or company affiliation with strangers.

5. Aircraft preflight inspection shall be performed to determine if clandestine explosive or incendiary devices have been secreted on board the aircraft. Such inspection shall be performed as part of the Security Checklist.

6. At intermediate stops, the main cabin and baggage doors will be closed and locked, if possible, whenever the aircraft is not under crew surveillance. At the final destination, the aircraft will be secured by placing covers in position, inserting appropriate pins, and locking the aircraft. When terminating at flight operations base, the pins, if applicable, will be inserted, and the door closed and locked.

7. Passengers and crew carrying classified material must receive courier training and receive periodic certification, as required by the originating agency directives, as applicable.

3.2.15.3 Rules Governing PNNL Aircraft Cargo

1. Materials designated as hazardous or radiological cargo must meet the applicable federal or state regulations relating to the interstate or intrastate transport of such material.

2. Materials designated as controlled substances and covered by federal or state statutes must meet the applicable PNNL policy or federal or state regulations relating to such transport.

3. All packages and cargo received for transport shall bear the identity of the sender and the receiver. Such material shall be packaged to permit visual examination of the package exterior to determine if the package has been opened or tampering has occurred.

4. Non-PNNL passengers must meet the PNNL, DOE, or DoD requirements for transport of classified, hazardous, toxic, controlled, or radiological material.

3.2.15.4 Prohibition Against Carriage of Weapons (FAR 135.119)

1. Firearms being transported shall be stored in the cargo area and must be unloaded. Ammunition shall be stored in containers approved for air transport of such materials. Possession of hand-held sidearms shall not be permitted, except for persons authorized by applicable federal or state license to carry such weapons.

2. While on board an aircraft being operated by PNNL, no person may carry a deadly or dangerous weapon, either concealed or unconcealed. This restriction does not apply to crew members and other persons authorized by PNNL to carry arms.

3. Sporting firearms will be allowed in the passenger cabin when unloaded and enclosed in a suitable case. Firearms will not be removed from the case while inside the aircraft.

3.2.15.5 Packages and Mail on PNNL Aircraft

The following procedures must be followed in order for a package/mail requiring special handling to be accepted by the PIC:

1. Classified or Business Sensitive material shall be packaged and marked to meet the originating agency requirements for the appropriate classification level.

2. Contact the ASPOC and inform him an item will be delivered to the PIC and when.

3. Item must be hand carried to the aircraft and given to the PIC.

4. Person delivering and receiving the package must be a PNNL employee with PNNL identification.

5. Package must be clearly labeled and handling of package at the other end must be communicated to the PIC responsible for transporting the package.

3.3 Aircraft Scheduling Procedures

3.3.1 Contact

Applicability. The section applies to all current and prospective PNNL staff members and clients. Research users of the PNNL research aircraft must follow the procedure presented in Section 3.3.2; non-research users follow the procedure given in Section 3.3.3.

Requirement. Requests for the use of the PNNL research aircraft by both PNNL and non-PNNL users are made in writing to the Scheduler.

Responsibility. Staff members requesting non-research use of PNNL aircraft must obtain their line manager's and Level I manager's written approval before submitting their request to the scheduler.

3.3.2 Scheduling Research Flights

The required procedure for requesting and scheduling use of the PNNL research aircraft for research flights is as follows:

Requesting Aircraft Support. All potential research users of the PNNL research aircraft must submit an Initial Aircraft Support Request (Appendix A, page A.30) to the Scheduler at least 6 months prior to intended use. A more detailed Research Aircraft Deployment Document (Appendix A, page A.31) must be completed by the requester and submitted to the Scheduler no less than one month before scheduled use. Both forms are available in electronic form from the Scheduler. The more detailed deployment document solicits information in the following areas:

- Project Identification
- Research Sponsor
- Other Aviation Facilities
- Flight Operations
- Supplemental Information for Compliance with DOE 440.2
- Requested PNNL-Provided Scientific Payload
- User-Supplied Scientific Payload
- Ground Support Facilities.

Evaluation of Request. Because the Department of Energy funds the PNNL research aircraft, the request, as detailed on the form, is evaluated by an advisory panel of the DOE Research Aircraft Facility and by a team of PNNL safety and environmental compliance specialists. The advisory panel determines whether the requested flights constitute appropriate use of the DOE Research Aircraft Facility. The team of PNNL safety and environmental compliance specialists determines whether the risks associated with the requested flights are within the normal bounds of research flying. If either the advisory panel or PNNL team raise specific issues about the request, these issues are communicated to the requestor for clarification and resolution.

Approval of Request. After review by the advisory panel and PNNL safety and environmental compliance specialists, approval of the request is confirmed with return of a signed copy of the form to the user. The user can then work directly with the Scheduler and other staff of the Research Aircraft

Facility to complete the plan for the flights. The PNNL ASPOC will notify the DOE/RL ASO of all approved research flights.

Scheduling Guidelines. Research flights in support of DOE-funded projects have priority over other uses, except as authorized by the advisory panel. The Scheduler will attempt to accommodate all approved requests and will negotiate with users and the Director of Flight Operations a mutually satisfactory schedule for research flights. Changes in schedules that occur while the aircraft is away from the home station will be reported to the Scheduler by the assigned PIC. The Scheduler will then coordinate with all users a new schedule for the remaining flights.

Method of Payment for Research Use of the PNNL Research Aircraft. The advisory panel to the DOE Research Aircraft Facility determines whether a request is an appropriate use of the facility. If so, most of the financial cost of the use of the aircraft is borne by DOE and no fee is charged for use of the PNNL research aircraft. If the use is not appropriate, the user will be charged the hourly use rate established for the PNNL research aircraft when the plane is actually flown. Note that an appropriate contacting mechanism for billing the cost of the use of the PNNL research aircraft to the user must be in place before aircraft use can occur.

3.3.3 Scheduling Non-Research Flights

The required procedures for using the PNNL research aircraft for non-research business travel are described as follows:

Making Air Transportation Arrangements. The PNNL staff member requesting non-research air transportation on board the PNNL research aircraft completes the Requester portion of the PNNL Passenger Transport Request form (Appendix A, page A.2) and submits this form to the PNNL Aircraft Scheduler. A copy of this form should be sent by the Requester to his/her line manager and Level I manager for approval.

The PNNL Passenger Transport Request form calls for the following information:

- Name and title
- Payroll number
- Organization code
- Phone number
- Travel funding (government or non-government) and account or work package number
- Travel dates

- Destination
- Ground transportation required
- Special information (such as catering, unusual baggage, medical concerns).

The Scheduler will:

- Arrange and confirm seat availability for PNNL staff on the PNNL research aircraft
- Request the Non-Research Passenger Transport Manifest for the PNNL research aircraft (Scheduling Form) (Appendix A, page A.3) be faxed to their attention, prior to confirming space if special approval is required

Scheduling Guidelines. Staff are scheduled on a first-come-first serve basis. A staff member may bump another staff member when the PNNL Lab Director or his/her designee approves such scheduling priority.

Staff should contact PNNL media relations and PNNL legal departments regarding regulations governing the carriage of elected officials and candidates on the PNNL research aircraft prior to scheduling such guests.

All flights shall originate and be scheduled through the Scheduler. All schedules will be coordinated with the Director of Flight Operations and Chief Pilot. Changes in schedules that occur while the aircraft is away from the home station will be reported to the Scheduler by the assigned PIC. It shall then become the responsibility of the Scheduler to coordinate the remainder of that trip sequence for all passengers and crew.

The Scheduler shall furnish to the PIC the telephone number(s) where the passenger(s) may be reached, if a departure time will be outside of normal working hours.

The PNNL ASPOC will provide the DOE/RL ASO with a passenger manifest (Appendix A, page A.3) prior to all scheduled passenger flights on the PNNL research aircraft..

Method of Payment for Use of the PNNL Research Aircraft. The PNNL Accounting Office will charge the cost of air transportation at the customary commercial full coach fare, using a non-cash transfer process. Cost will be charged to the staff member's applicable work package number for which business travel is being funded.

Note: Staff must document on their travel expense report form that a PNNL research aircraft was used for transportation; however, they do not include the transportation cost processed by PNNL.

Use of the PNNL Research Aircraft by Non-Employees. Staff may request scheduling for PNNL clients on the aircraft. Advance approval of the PNNL Director or designee is required.

Travel Restriction. Use of the PNNL research aircraft for non-business purposes is prohibited.

3.3.4 Flight Schedules and Crew Assignments

The Chief Pilot or designee schedules crews on a rotation basis. A crew member may make arrangements to switch with other qualified crew members. Approval is required from the Chief Pilot or his/her designee to ensure normal schedule continuity. Crew members requesting swaps may be required to work additional days in order to avoid increasing the schedule burden of non-requesting crew members.

The Chief Pilot will make the regular flight crew assignments. Also, the Chief Pilot must approve Contract Copilot assignments.