Forward

This manual establishes the responsibility and procedures to effectively disseminate requirements, standards, procedures, and guidelines for the operation of the Goddard Space Flight Center Wallops Flight Facility Airfield. This document is utilized in planning and operations and is not intended to cover every contingency that may arise or every rule of safety and good operating practice. It should be used in conjunction with other governing directives, regulations, and procedures. Deviations from this manual are authorized in emergencies or in situations where flight or ground safety might otherwise be compromised. Written documentation of deviations is required and must be transmitted to the NASA WFF Aircraft Office Chief and the NASA WFF Airfield Administrator as soon as practical but no later than 30 calendar days following the incident.

Comments and questions concerning the contents of this manual should be addressed to the NASA WFF Airfield Administrator, Code 830, Wallops Flight Facility, Wallops Island, VA 23337. This is a controlled document and will be reviewed annually and revised when necessary. When corrections or page changes are entered, the changes will be annotated on the Change Information Page. This document is posted at the Code 830 website and server.
# CHANGE HISTORY LOG

<table>
<thead>
<tr>
<th>Revision</th>
<th>Effective Date</th>
<th>Description of Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>April 2017</td>
<td>Baseline</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Contents

<table>
<thead>
<tr>
<th>Section 1. General Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 General Information</td>
</tr>
<tr>
<td>1.2 Mission</td>
</tr>
<tr>
<td>1.3 Responsibilities</td>
</tr>
<tr>
<td>1.4 Directives</td>
</tr>
<tr>
<td>1.5 Cancellations</td>
</tr>
<tr>
<td>1.6 References</td>
</tr>
<tr>
<td>1.7 Measurement</td>
</tr>
<tr>
<td>1.8 Acronyms and Definitions</td>
</tr>
<tr>
<td>1.9 Records</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section 2. Airfield Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Location, Communications, and Layout</td>
</tr>
<tr>
<td>Figure 2.1: WFF Air Operations Area</td>
</tr>
<tr>
<td>Figure 2.2: Wallops Flight Facility Airfield Diagram</td>
</tr>
<tr>
<td>2.2 Aircraft Parking Areas</td>
</tr>
<tr>
<td>2.3 Airfield Signs, Marking and Lighting Plan</td>
</tr>
<tr>
<td>Figure 2.3: WFF Airfield ATA Obstruction Chart</td>
</tr>
<tr>
<td>Figure 2.4: ATCT Light Gun Signals</td>
</tr>
<tr>
<td>2.4 WFF Airfield Operations</td>
</tr>
<tr>
<td>2.5 Hangar and Service Facilities</td>
</tr>
<tr>
<td>2.6 Course Rules</td>
</tr>
<tr>
<td>2.7 Taxi Instructions</td>
</tr>
<tr>
<td>2.8 Take-Off and Departure Instructions</td>
</tr>
<tr>
<td>2.9 Landing Instructions</td>
</tr>
<tr>
<td>2.10 Training</td>
</tr>
<tr>
<td>2.11 Simultaneous Runway Use</td>
</tr>
<tr>
<td>2.12 Night Operations</td>
</tr>
<tr>
<td>2.13 Aerobatic Flight</td>
</tr>
<tr>
<td>2.14 Fuel Dumping</td>
</tr>
<tr>
<td>2.15 Towing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section 3. Foreign Object Debris</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Prevention</td>
</tr>
<tr>
<td>3.2 Control Procedures</td>
</tr>
<tr>
<td>3.3 Safety Warning</td>
</tr>
<tr>
<td>3.4 Equipment</td>
</tr>
<tr>
<td>3.5 FOD Training</td>
</tr>
<tr>
<td>3.6 Inspection</td>
</tr>
<tr>
<td>3.7 Accessing the Airfield</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 General Information</td>
</tr>
<tr>
<td>4.2 Ground Vehicular Traffic / Airfield Operational Areas</td>
</tr>
<tr>
<td>Figure 4.1: WFF Airfield Mowing Guidance</td>
</tr>
<tr>
<td>4.3 Hazardous Cargo</td>
</tr>
<tr>
<td>4.4 Electromagnetic Radiation Hazards for Pyrotechnics</td>
</tr>
<tr>
<td>4.5 Hydrazine Fuel</td>
</tr>
</tbody>
</table>

Check the Aircraft Office Controlled Documents List at https://code830.wff.nasa.gov/ to verify that this is the correct version prior to use.
4.6 Aircraft Carrying Combat Type Ordnance ................................................................. 42
   Figure 4.2: Aircraft Parking Areas ................................................................................. 43
4.7 Hazard, Accident, Incident, Mishap Irregularity Reporting .................................... 44
   Figure 4.3: Aircraft Office Irregularity Report Form ...................................................... 44
4.8 Personnel Authorized to Taxi Aircraft ..................................................................... 45
4.9 Aircraft Towing .......................................................................................................... 45
4.10 GSE and Service Vehicles / Flight Lines and Parking Ramps ............................... 45
4.11 Smoking on Flight Lines, Parking Ramps, or Hangar Areas ................................... 46
4.12 Oxygen Service (Liquid and Gaseous) .................................................................... 46
4.13 Fire Precautions for Flight Lines and Hangar Areas .............................................. 47
4.15 Jacking of Aircraft .................................................................................................. 49
4.16 Fueling / Defueling, Safety Precautions and Procedures ........................................ 49
4.17 Hangar Deck Operations and Responsibilities ........................................................ 50
   Figure 4.4 WFF Environmental Contingency Plan ....................................................... 52
4.18 Engine Operations on Flight Lines and Ramps ....................................................... 52
4.19 Ejection Seats and Canopies .................................................................................... 53
4.20 Chocks, Tie Downs, and Flight Line Security .......................................................... 53
4.21 Facility Design and Modification ............................................................................ 54
4.22 Airfield Snow Removal (See Appendix B) ............................................................... 54
Appendix A: Airfield Layout ............................................................................................ 56
Appendix B: Snow Removal Plans ................................................................................ 58
Appendix C: Airfield Signs, Marking and Lighting .......................................................... 62
Appendix D: Airfield Status Record .............................................................................. 65
Appendix E: WFF Airfield Driver Permit Request ......................................................... 67
Appendix F: Prior Permission Request (PPR) Form ....................................................... 68
Appendix G: NOTAM Request Form ............................................................................. 69
Appendix H: WFF Airfield Driver Permit Information .................................................. 70
   H.1 WFF Airfield Driver Training ............................................................................... 70
   H.2 Permission for WFF Airfield Access ..................................................................... 70
Appendix I: Waivers ........................................................................................................ 72
Appendix J: Mishap Response ......................................................................................... 73

Check the Aircraft Office Controlled Documents List at https://code830.wff.nasa.gov/ to verify that this is the correct version prior to use.
Section 1. General Information

In this document, a requirement is identified by “shall,” a good practice by “should,” permission by “may” or “can,” expectation by “will,” and descriptive material by “is.”

1.1 General Information

The regulations set forth are issued to promote the safe, orderly, and expeditious movement of air traffic at the National Aeronautics and Space Administration (NASA) GSFC/WFF Airfield and within its Class D and associated airspace. To that end, all aircraft and personnel operating within this area shall adhere to the procedures contained in this document except when to do so would place aircraft, its occupants, airfield personnel and/or equipment in an unsafe circumstance. Deviation from these procedures shall be accomplished in accordance with the best rules of airmanship. The rules and procedures set forth herein will in no way modify or nullify existing safety regulations or instructions issued by higher authority. It is incumbent upon all pilots to abide by TITLE 14 CFR, Federal Aviation Regulations, Part 91, General Operating and Flight Rules, except when this manual contains more stringent regulations. All other personnel engaged in support of aircraft operations at the WFF Airfield shall also be bound by the rules and provisions contained herein, as applicable.

1.2 Mission

Wallops Flight Facility Airfield is a Federal airfield owned by the National Aeronautics and Space Administration (NASA) and operated by the Chief, WFF Aircraft Office to meet the needs of NASA, Resident Agencies, and other NASA authorized users. Use of the airfield is limited to agencies of the Federal government or agencies supporting requirements established by the Federal government. Director of Suborbital Projects and Operations, Goddard Space Flight Center, Wallops Flight Facility in accordance with Title 14 Code of Federal Regulations, Part 1204 may approve any other use.

1.3 Responsibilities

1.3.1 Aircraft Office Chief

The NASA Aircraft Office Chief (also Chief of Flight Operations) is responsible for the management and operation of the NASA WFF airfield, ensuring compliance with all operating standards established for the airfield.

1.3.2 WFF Airfield Administrator

The NASA WFF Airfield Administrator (AA) is supervised and shall report directly to the NASA WFF Aircraft Office Chief. The AA serves as the point of authority and execution for WFF on all matters related to WFF airfield policy and planning. The NASA WFF AA is responsible for leading the team of civil servant and contractor personnel responsible for the daily operations of the airfield, as well as airfield business management activities.

Check the Aircraft Office Controlled Documents List at https://code830.wff.nasa.gov/ to verify that this is the correct version prior to use.
1.3.3 **WFF Airfield Operations Manager**

The NASA WFF Airfield Operations Manager (AFM) is supervised by the NASA WFF Aircraft Office Chief and will serve as the operations execution lead for all daily airfield operations under the strategic leadership and tactical direction of the NASA WFF AA. On behalf of the AA, the AFM shall provide tactical tasking to and collect status from all support elements and contracts supporting project execution and sustainment activities.

1.3.4 **Aviation Safety Officer**

The Aviation Safety Officer (ASO) is a member of the WFF Aircraft Office. The Aviation Safety Officer is the responsible authority for ensuring activities conducted on the Wallops Flight Facility Airfield are conducted in a safe manner in accordance with operational procedures and regulatory standards.

1.3.5 **Assistant Airfield Operations Manager**

The Assistant Airfield Operations Manager (AAFM) shall provide assistance to the NASA airfield operations manager (AFM) and the NASA Airfield Administrator (AA) in providing a safe and efficient airfield operating environment at the NASA WFF airfield, as well as providing support in planning, organizing, managing, and directing airfield operations and maintenance activities ensuring compliance with NPR 7900.3, the WFF Airfield Operations Manual, and applicable FAA Advisory Circulars. The AAFM shall monitor all daily activities on the airfield and assist the AFM and AA with other administrative and operational tasks as needed.

1.3.6 **Airfield Operations Support Personnel**

All other assigned airfield operations support personnel shall work with the AAFM to monitor all daily activities on the airfield and assist the AFM and AA with other administrative and operational tasks as needed.

1.3.7 **Control Tower Operators**

All NASA WFF Airfield control tower operators (CTOs), which includes the NASA WFF control tower chief, if assigned, shall work with the AAFM and provide assistance to the NASA AFM and the NASA AA in providing a safe and efficient airfield operating environment at the NASA WFF airfield. CTOs shall provide assistance in ensuring compliance with NPR 7900.3, the WFF Airfield Operations Manual, as well as applicable FAA Advisory Circulars. CTOs are responsible for conducting the daily operations of the WFF control tower. CTOs shall ensure activities are executed in compliance with approved operational procedures and regulatory standards.

1.4 **Directives**

The airfield is not currently certified (nor currently required to be) under Federal Aviation Regulations, Part 139, Certification and Operations: Land Airports Serving Certain Air Carriers, but uses Part 139 and other industry standards as a guide for establishing airfield requirements.

Pilots using the airspace are required to abide by the appropriate portions of FAR Part 91, General Operating and Flight Rules, unless this Airfield Operations Manual provides more stringent guidelines, in which case the latter would apply.
Airport Traffic Control Tower (ATCT) and ATC equipment maintenance services will be provided in accordance with applicable NASA and FAA regulations and directives. Training, personnel administration, safety programs, drug testing programs, staffing standards and other operational matters will be conducted in accordance with NASA regulations and procedures. All existing NASA management instructions pertaining to the operation of airfields will be adhered to or waivers to the controlling documents will be obtained.

1.5 Cancellations

- 840-WI-7900.0.1 Wallops Flight Facility Airfield Driver Training Program is cancelled. The work instruction is incorporated in the appendices of this plan.

1.6 References

a. NPR 7900.3 Aircraft Operations Management Manual
b. Title 14 Code of Federal Regulations (CFR) Chapters I and III, Federal Aviation Regulations, with specific references to Parts 91, 1204, 139, 73, 77, 77.9, 139.305 and FAA Orders 7110, 7110.65
c. FAA AC No. 90-42 Traffic Advisory Practices at Airports Without Operating Control Towers
d. DOD Low Altitude Instrument Approach Procedures
f. NASA WI-1550 Hazardous Waste Disposal Inventory
g. 803-WI-8715.1.10 Safety Procedures for Aircraft Operations with Live Ordnance at the Wallops Flight Facility (WFF)
h. 830-WI-7900.0.2 Wallops Flight Facility Aircraft Fueling Procedures (previously 840-WI-7900.0.2)
i. 830-WI-7900.0.3 Wallops Flight Facility Fuel Facility Operations (previously 840-WI-7900.0.3)
j. 36FC1-PLAN-007534 Wildlife Management Plan
k. 830-AMRP-0001 Wallops Flight Facility Airfield Mishap Response Plan
l. 830-MAMC-0001 Aircraft Office Mission Anomaly and Mishap Contingency Plan
m. 830-AOF-0212 Aircraft Office Irregularity Report
n. 830-AOF-0501 Airfield Status Record
o. 830-AOF-0502 NOTAM Distribution Form
p. 830-AOF-0503 NOTAM Request Form
q. 830-AOF-0504 PPR Request Form
r. 830-AOF-0505 Wallops Airfield Driver Permit Request

1.7 Measurement

The effectiveness of this plan is measured through periodic audits.

Check the Aircraft Office Controlled Documents List at https://code830.wff.nasa.gov/ to verify that this is the correct version prior to use.
# 1.8 Acronyms and Definitions

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA</td>
<td>NASA WFF Airfield Administrator</td>
</tr>
<tr>
<td>AAFM</td>
<td>NASA WFF Assistant Airfield Operations Manager</td>
</tr>
<tr>
<td>AFM</td>
<td>Airfield Operations Manager</td>
</tr>
<tr>
<td>AGL</td>
<td>Above Ground Level: Used as a reference when conveying or determining the altitude of an aircraft.</td>
</tr>
<tr>
<td>Aircraft</td>
<td>A machine or device, such as an airplane, a helicopter, a glider, or a dirigible, that is capable of atmospheric flight.</td>
</tr>
<tr>
<td>Airfield</td>
<td>An area of land or water that is used or intended to be used for the landing and takeoff of aircraft, including buildings and facilities.</td>
</tr>
<tr>
<td>AIR</td>
<td>Airfield Irregularity Report</td>
</tr>
<tr>
<td>Airfield Operating Area</td>
<td>Movement and non-movement areas inside all fence lines or gates marked with significant signage.</td>
</tr>
<tr>
<td>Air Traffic</td>
<td>Aircraft operating in the air or on an airfield surface, exclusive of loading ramps and parking areas.</td>
</tr>
<tr>
<td>AOA</td>
<td>Airfield Operations Area</td>
</tr>
<tr>
<td>APU</td>
<td>Auxiliary Power Unit: An aircraft onboard power unit for providing temporary power to onboard systems.</td>
</tr>
<tr>
<td>Armed Forces</td>
<td>The United States Army, Navy, Air Force, Marine Corps, and Coast Guard, including their regular and reserve components and members.</td>
</tr>
<tr>
<td>ARFF</td>
<td>Aircraft Rescue and Fire Fighting</td>
</tr>
<tr>
<td>ASO</td>
<td>Aviation Safety Officer</td>
</tr>
<tr>
<td>ASOS</td>
<td>Automated Surface Observing System</td>
</tr>
<tr>
<td>ATA</td>
<td>Air Traffic Area: That air space within 5 statute miles of the geographical center of an airfield and below 2,500 feet above ground level.</td>
</tr>
<tr>
<td>ATC</td>
<td>Air Traffic Control: A service operated by appropriate authority to promote the safe, orderly, and expeditious flow of air traffic.</td>
</tr>
<tr>
<td>ATCT</td>
<td>Airport Traffic Control Tower</td>
</tr>
<tr>
<td>ATIS</td>
<td>Automatic Terminal Information Service</td>
</tr>
<tr>
<td>CFR</td>
<td>Crash, Fire, and Rescue: Those vehicles and/or personnel used for crash, fire, and rescue emergencies at the Wallops Flight Facility Airfield (or) Code of Federal Regulations</td>
</tr>
<tr>
<td>Class D Airspace</td>
<td>For WFF, that airspace that extends from the surface to 2,500 feet (above ground level) within a 4.4 nautical mile radius of the geographical center of the WFF Airfield and within 1.8 nautical miles each side of SWL VORTAC 181 degree radial, extending from 4.4 nautical miles to 2.2 nautical miles south of the SWL VORTAC. This Class D Airspace reverts to a classification of Class E Airspace (Uncontrolled Airspace) when the Control Tower is unmanned.</td>
</tr>
<tr>
<td>CTAF</td>
<td>Common Traffic Advisory Frequency: Name given to the VHF radio frequency used for air-to-air-to-ground communication at US, Canadian and Australian non-towered airports or towered airports when the tower is closed. Pilots and ground vehicles use the common frequency to coordinate their arrivals and departures safely, giving position reports and acknowledging other aircraft in the airfield traffic pattern.</td>
</tr>
<tr>
<td>CTO</td>
<td>Control Tower Operator: A person trained and certified to control air and ground traffic in an airport environment.</td>
</tr>
<tr>
<td>DoD</td>
<td>Department of Defense</td>
</tr>
</tbody>
</table>

Check the Aircraft Office Controlled Documents List at [https://code830.wff.nasa.gov/](https://code830.wff.nasa.gov/) to verify that this is the correct version prior to use.
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMT</td>
<td>Emergency Medical Technician: A person trained and certified to provide basic medical services before and during transportation to a hospital.</td>
</tr>
<tr>
<td>EPU</td>
<td>Emergency Power Unit</td>
</tr>
<tr>
<td>FAA</td>
<td>Federal Aviation Administration</td>
</tr>
<tr>
<td>FAR</td>
<td>Federal Aviation Regulations.</td>
</tr>
<tr>
<td>FMB</td>
<td>Facilities Management Branch: An organization within GSFC that falls under the designation of GSFC Code 200.</td>
</tr>
<tr>
<td>FOD</td>
<td>Foreign Object Debris</td>
</tr>
<tr>
<td>FOM</td>
<td>Facilities Operations Manager: A designated individual responsible for monitoring all matters that affect the safety, utilization, and general livability of an assigned building(s) and its surroundings.</td>
</tr>
<tr>
<td>Friction Mat Sweepers</td>
<td>A rectangular assembly towed behind a vehicle that employs a series of bristle brushes and friction to sweep FOD into sets of capture scoops, which are covered by a retaining mesh to hold collected debris.</td>
</tr>
<tr>
<td>FSS</td>
<td>Flight Service Station</td>
</tr>
<tr>
<td>G Factor</td>
<td>Factor of the force of gravity</td>
</tr>
<tr>
<td>GPM</td>
<td>Gallons per Minute (pump rate)</td>
</tr>
<tr>
<td>GPS</td>
<td>Global Positioning System</td>
</tr>
<tr>
<td>GPU</td>
<td>Ground Power Unit. Ramp and/or hangar equipment used to provide temporary power to aircraft.</td>
</tr>
<tr>
<td>GSE</td>
<td>Ground Support Equipment</td>
</tr>
<tr>
<td>GSFC</td>
<td>Goddard Space Flight Center: One of several NASA field centers of which the WFF is a subdivision.</td>
</tr>
<tr>
<td>Heavy Aircraft</td>
<td>Aircraft capable of takeoff weights of 300,000 pounds or more whether or not they are operating at this weight during a particular phase of flight.</td>
</tr>
<tr>
<td>HIRL</td>
<td>High Intensity Runway Lights</td>
</tr>
<tr>
<td>IAW</td>
<td>In accordance with</td>
</tr>
<tr>
<td>IFR Conditions</td>
<td>Instrument Flight Rules. Weather conditions below the minimum for flight under visual flight rules, as applied to WFF Airfield Class D Airspace, i.e., any condition wherein the ceiling is less than 1,000 feet or the visibility is less than 3 miles.</td>
</tr>
<tr>
<td>Jet A</td>
<td>Kerosene-type jet fuel commonly used in commercial aviation</td>
</tr>
<tr>
<td>KWAL</td>
<td>International Civil Aviation Organization identifier for the WFF Airfield</td>
</tr>
<tr>
<td>Large Aircraft</td>
<td>Aircraft of more than 41,000 pounds up to but not including 300,000 pounds, maximum certified takeoff weight.</td>
</tr>
<tr>
<td>LEADS</td>
<td>Leading Environmental Analysis and Display System</td>
</tr>
<tr>
<td>LT</td>
<td>Local Time: At the WFF local time can be either Eastern Standard Time or Daylight Saving Time dependent upon the time of the year.</td>
</tr>
<tr>
<td>Magnetic Bar</td>
<td>A bar attached or suspended from a vehicle or tug that picks up metallic material from the surface which it is driven over.</td>
</tr>
<tr>
<td>MSL</td>
<td>Mean Sea Level: A reference used to determine the elevation of an airport.</td>
</tr>
<tr>
<td>NASA</td>
<td>National Aeronautics and Space Administration</td>
</tr>
<tr>
<td>NFPA</td>
<td>National Fire Protection Association</td>
</tr>
<tr>
<td>NOTAM</td>
<td>Notice-To-Airmen: A notice containing information concerning the establishment, condition and/or change in any facility, service, procedure or hazard in the National Airspace System of which the timely knowledge is essential to personnel concerned with flight operations.</td>
</tr>
<tr>
<td>NPR</td>
<td>NASA Procedural Requirement</td>
</tr>
<tr>
<td>NWS</td>
<td>National Weather Service</td>
</tr>
</tbody>
</table>

Check the Aircraft Office Controlled Documents List at [https://code830.wff.nasa.gov/](https://code830.wff.nasa.gov/) to verify that this is the correct version prior to use.
<table>
<thead>
<tr>
<th>Operate</th>
<th>With respect to aircraft, means to use, cause to use, or authorize to use aircraft for air navigation, including the piloting of aircraft, with or without the right of legal control</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAPI</td>
<td>Precision Approach Path Indicator</td>
</tr>
<tr>
<td>POC</td>
<td>Point of Contact</td>
</tr>
<tr>
<td>PPR</td>
<td>Prior Permission Request: A prior request for approval necessary to land at the Wallops Flight Facility Airfield.</td>
</tr>
<tr>
<td>Power Vacuum Sweeper</td>
<td>A FOD removal system that removes debris from paved surface areas by means of air flow. The system may also perform in conjunction with mechanical brooms or other recirculating air units.</td>
</tr>
<tr>
<td>REIL</td>
<td>Runway End Identification Lights</td>
</tr>
<tr>
<td>Research Project</td>
<td>A reference to research activities at the Wallops Flight Facility Test Range.</td>
</tr>
<tr>
<td>Restricted Area</td>
<td>Airspace designated under TITLE 14 CFR, Part 73, Special use Airspace, within which the flight of aircraft while not wholly prohibited, is subject to restriction.</td>
</tr>
<tr>
<td>RF</td>
<td>Radio Frequency</td>
</tr>
<tr>
<td>RSA</td>
<td>Runway Safety Area</td>
</tr>
<tr>
<td>SAR</td>
<td>Search And Rescue</td>
</tr>
<tr>
<td>SBY</td>
<td>Salisbury, Maryland VORTAC designation</td>
</tr>
<tr>
<td>Small Aircraft</td>
<td>Aircraft of 41,000 pounds or less, maximum certified take-off weight</td>
</tr>
<tr>
<td>SWL</td>
<td>Snow Hill, Maryland VORTAC designation</td>
</tr>
<tr>
<td>TACAN</td>
<td>Tactical Airborne Navigation (or) Tactical Control and Navigation</td>
</tr>
<tr>
<td>Traffic Pattern</td>
<td>The traffic flow that is prescribed for aircraft landing at, taxiing on, or taking off from an airport</td>
</tr>
<tr>
<td>UNICOM</td>
<td>Universal Communications: A ground-to-air radio communication station that may provide airport advisory information when the local Control Tower is unmanned. NOT USED AT WFF.</td>
</tr>
<tr>
<td>U.S.</td>
<td>United States</td>
</tr>
<tr>
<td>USDA</td>
<td>United States Department of Agriculture</td>
</tr>
<tr>
<td>VA</td>
<td>Virginia</td>
</tr>
<tr>
<td>VFR</td>
<td>Visual Flight Rules: Rules that govern the procedures for conducting flight under visual conditions</td>
</tr>
<tr>
<td>VIP</td>
<td>Very Important Person</td>
</tr>
<tr>
<td>VOR</td>
<td>Very High Frequency Omnidirectional Range</td>
</tr>
<tr>
<td>VORTAC</td>
<td>Very High Frequency Omnidirectional Radio Range Tactical Aircraft Control</td>
</tr>
<tr>
<td>VPDES</td>
<td>Virginia Pollutant Discharge Elimination Systems</td>
</tr>
<tr>
<td>WFD</td>
<td>WFF Fire Department</td>
</tr>
<tr>
<td>WFF</td>
<td>Wallops Flight Facility: A subdivision of GFSC under which reside several organizational codes</td>
</tr>
<tr>
<td>WI</td>
<td>Work Instruction</td>
</tr>
</tbody>
</table>
1.9 Records

The records listed below are generated by this document. Records are maintained in accordance with the NASA Records Retention Schedule (NRRS 1441.1)

<table>
<thead>
<tr>
<th>Record Title</th>
<th>Record Custodian</th>
<th>Retention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed Airfield Status Record</td>
<td>Aircraft Office</td>
<td>NRRS 8/103 Temporary. Destroy/delete after 5 years</td>
</tr>
<tr>
<td>WFF Airfield Driver Permit Requests and their dispositions, records of WFF Airfield Driver Training Program participants and their test scores</td>
<td>Aircraft Office</td>
<td>NRRS 8/103 Temporary. Destroy/delete after 5 years</td>
</tr>
<tr>
<td>Quarterly Airfield Status Review</td>
<td>Aircraft Office</td>
<td>NRRS 8/103 Temporary. Destroy/delete after 5 years</td>
</tr>
<tr>
<td>Completed NOTAM Request Forms/NOTAM issued</td>
<td>Aircraft Office</td>
<td>NRRS 8/103 Temporary. Destroy/delete after 5 years</td>
</tr>
<tr>
<td>Completed PPR Request Forms/PPR #</td>
<td>Aircraft Office</td>
<td>NRRS 8/103 Temporary. Destroy/delete after 5 years</td>
</tr>
<tr>
<td>Maintenance/Inspection Records/Daily Tower Log</td>
<td>Aircraft Office</td>
<td>NRRS 8/103 Temporary. Destroy/delete after 5 years</td>
</tr>
<tr>
<td>Completed Airfield Irregularity Reports</td>
<td>Aircraft Office</td>
<td>NRRS 8/103 Temporary. Destroy/delete after 5 years</td>
</tr>
<tr>
<td>Waivers</td>
<td>Aircraft Office</td>
<td>NRRS 8/103 Temporary. Destroy/delete after 5 years</td>
</tr>
<tr>
<td>Biennial Review (beginning 2020)</td>
<td>Aircraft Office</td>
<td>NRS 8/103 Temporary Destroy/delete after 5 years</td>
</tr>
<tr>
<td>PCI Index (beginning 2020)</td>
<td>Aircraft Office</td>
<td>NRS 8/103 Temporary Destroy/delete after 5 years</td>
</tr>
<tr>
<td>Airfield Operations Personnel Airfield Training Folder</td>
<td>Aircraft Office</td>
<td>NRS 8/103 Temporary Destroy/delete after 5 years</td>
</tr>
</tbody>
</table>
Section 2. Airfield Information

2.1 Location, Communications, and Layout

2.1.1 Location and Description
The WFF Airfield is a NASA facility located approximately 5 miles west of the town of Chincoteague on the Eastern Shore of Virginia (VA). The geographical coordinates of the airfield are 37°56' north latitude, and 75°28' west longitude. The airfield elevation is 41 feet above Mean Sea Level (MSL). Appendix A shows an overview of the Airfield layout.

2.1.2 Communications
ATIS: 119.175  Voice line: 757-824-0820 (ASOS)
TWR: VHF126.5, UHF306.975.
GND: VHF127.875, UHF269.325
CTAF: VHF126.5, UHF306.975
PATUXENT APP/DEP: VHF127.95, UHF314.0
PATUXENT CLNC DEL: VHF121.7
UNICOM IS NOT USED AT WFF

2.1.3 Runway Information
Runways and taxiways are inspected daily; upon completion the runway condition shall be reported to the Tower. The WFF Airfield has three runways constructed of concrete and asphalt. (See Fig 2-1 and/or Appendix A)

Runway 10/28 8005 X 200 feet
Runway 04/22 8749 X 150 feet
Runway 17/35 4808 X 150 feet

2.1.4 Taxiways
Two taxiways Alpha and Echo parallel runways 10/28 and 04/22 and connect at the ends. Taxiways Bravo, Charlie, Delta, Foxtrot, Gulf, Hotel, India and Juliet connect ramps to the parallel taxiways or the parallel taxiways to the runways. (See Fig 1-1 and/or Appendix A)

2.1.5 Air Operations Area
The portion of the WFF airfield that encompasses the landing, take off, taxiing, and parking areas for aircraft is the Air Operations Area (AOA). Wallops Flight Facility Airfield Driver Training as well as two-way VHF radio communications with the ATCT are required for vehicle or personnel access/operations within the AOA. When the tower is closed, the airfield will operate under Common Traffic Advisory Frequency (CTAF) protocols, and self-announcement on the CTAF communication channel is required for all personnel within the AOA. The AOA is shown in Figure 2.1 below.
2.1.6 Pavement Wheel Loads
Throughout the airfield the weight bearing capabilities of the WFF Airfield pavement are not consistent because of varied construction materials and thickness. As a result, the maximum allowable gross weight for large aircraft must be evaluated on a case-by-case basis. A Pavement Condition Index (PCI) evaluation is performed by the Airfield Operations Manager’s office in conjunction with WFF Institutional Engineers every 5 years.

2.1.7 Aircraft Not Based at WFF

2.1.7.1 Aircraft Operated for the Benefit of the Federal Government
NASA, Department of Defense (DOD) and Government operated/leased aircraft, through prior approval, are authorized to use the WFF Airfield for official use, and for training on a cost reimbursable, non-interference basis to NASA program activities.
2.1.7.2 Prior Permission Request (PPR) Procedure

All aircraft operated for the benefit of the Federal Government planning to utilize WFF Airfield shall coordinate and obtain a Prior Permission Request (PPR) number utilizing the PPR Request Form 830-AOF-0504 (See Appendix F). The PPR number will be used by WFF Airfield Operations personnel to record flight information and document support requirements.

The Pilot-In-Command should obtain a PPR at least 24 hours in advance by contacting WFF Airfield Operations at wff-kwalops@mail.nasa.gov or by phone at (757) 824-1688. Shorter notifications will be considered on a case-by-case basis.

When an in-flight PPR is required, the in-flight PPR is coordinated by contacting the WFF Airport Traffic Control Tower on the Tower Operational Frequency when approaching WFF. Due to this short notice, it is possible that permission to land may not be granted depending on scheduled usage and support requirements.

PPR numbers are not required for aircraft transitioning WFF airspace (i.e. low approaches, mosquito control flights, U.S. Fish & Wildlife flights, photo flights, DoD familiarization flights, etc.).

Airfield Operations maintains the PPR File containing documents and information needed to issue a PPR. Airfield operations personnel will complete the following steps to ensure all appropriate agencies are notified:

1. Prior to issuing a PPR, advise transient aircraft flight crews of the following support issues:

   a. WFF Airfield Operations has limited ground support equipment available (tugs, auxiliary power units, chock blocks, etc.) to support fixed or rotary wing transient aircraft.

   b. All refuel requests must be made through WFF Airfield Operations at the time of PPR request.

   c. WFF Airfield Operations does not currently have the equipment to moor or hangar transient aircraft in the event of in-climate weather.

   d. Roving security patrols are provided within the aircraft parking areas, however dedicated sentry post for sensitive aircraft shall be coordinated through your WFF host/POC and WFF Security Office.

   (The above information is summarized on the top of the PPR Request Form)

2. Aircrews will also be advised that some of the above restrictions may be resolved through prior coordination with WFF Airfield Operations. Airfield Operations personnel can provide points of contact for transient aircraft support requirements upon request. Whenever practicable, Airfield Operations will provide “on-airfield” transportation for transient aircrews.

3. Blocks 1 through 9 of the PPR Request Form 830-AOF-0504 shall be filled out by either the pilot or the Airfield Operations personnel receiving the information from the requester.
4. Provide a copy of the completed PPR Form to the requester and place the original in the PPR File.

5. Record information on PPR Request Form

6. If aircraft has a VIP on board, immediately notify the WFF Airfield Operations Manager as well as the WFF PAO via email.

2.1.7.3 Use Permit Procedure - Required for Aircraft Not Operated for the Benefit of the Federal Government

Aircraft not operated for the benefit of the Federal Government (State government, private aircraft, and corporate aircraft) are required to obtain a Use Permit to land and take off from WFF. Aircraft owners shall provide all the information listed below to WFF Airfield Operations Manager at least 30 days prior to the first requested visit to WFF:

1. Provide justification for use of the WFF Airfield consistent with the requirements of 14 CFR Section 1204.1400
2. Executed Hold Harmless Agreement (supplied by WFF upon initial request)
3. Completed Insurance Documentation (requirements supplied by WFF upon initial request)
4. Valid FAA Type Certificate, if applicable
5. Pilot and all passengers shall provide badging information and must be able to successfully obtain a WFF Visitors Badge before landing at WFF. No animals except service animals, are permitted.

Once a Use Permit has been obtained, the aircraft pilot must request a PPR at least 24 hours ahead of anticipated arrival at WFF. Follow PPR Procedure outlined in 2.1.7.2 and provide the Use Permit Number when requesting a PPR. Fuel and other consumable services are not available at WFF for aircraft operating under a Use Permit.

2.1.7.4 Unauthorized Use

Any aircraft not operated for the benefit of the federal government landing at WFF without a Use Permit and a PPR, except in a bona fide emergency, is in violation of 14 CFR Section 1204.1400 and may, in accordance with 14 CFR Section 1204.1407, be required to pay a user fee of not less than $100. Before the aircraft is permitted to depart, WFF will require full compliance with applicable requirements of 2.1.7.2 b through d. and the pilot shall provide a written report explaining the reasons for the unauthorized landing. Violators could also be subject to legal liability for unauthorized use. When it appears that the violation of 14 CFR Section 1204.1400 was deliberate or is a repeated violation, the matter will be referred to the Aircraft Management Division, NASA Headquarters, which will then be responsible for granting any departure authorization. Use Permits and PPR numbers are not required for aircraft transiting WFF airspace or executing a low approach. Both activities shall be coordinated with the WFF Airfield Tower and through CTAF when the tower is not staffed.
2.1.8 Special Use Airspace

R6604 is local restricted airspace that is activated in conjunction with launch range and airborne research activities to include UAS operations. The WFF Control Tower, when manned, is normally the focal point of control for all air traffic transiting R-6604 since portions of it include the class D. During CTAF, unmanned tower operations when R-6604 is active, pilots should contact WFF Range Control, Patuxent Approach or Washington Center (ZDC) on appropriate published frequencies for clearance through any portion of this restricted area.

Effective February 2, 2017, the FAA amended 14 CFR part 73 by establishing 3 new restricted areas, designated R–6604C, R–6604D and R–6604E, at NASA’s WFF Airfield (KWAL) in Virginia. The new areas adjoin the existing restricted areas (R–6604A and R–6604B) and will be used to contain a variety of test activities with potential for hazard to nonparticipating aircraft. The following is a general description of the areas. R–6604C (surface to 3,500’MSL) overlies the WFF airfield. R–6604D (100’AGL to 3,500’ MSL) is located northeast of WFF to approximately 15NM. R–6604E extends from 700 feet AGL to 3,500 feet MSL and is located to the SW of WFF. All three areas can be activated by Notice to Airmen (NOTAM) issued at least 12 hours in advance. The hours of operations are limited. For procedures to activate and request waivers for joint use while activated, contact WFF airfield operations at 757-824-1688.
Figure 2.2: Wallops Flight Facility Airfield Diagram

(Note: please refer to the current FAA/DoD FLIPs for current Airfield Diagram)

Check the Aircraft Office Controlled Documents List at https://code830.wff.nasa.gov/ to verify that this is the correct version prior to use.
2.1.9 Arresting Gear

Runway 04/22 is equipped with short and long field arresting gear. The gear is located 1,500 feet from the approach end of runway 22. The arresting gear is the E-28 type, which is owned, annually inspected, and certified by the U.S. Navy; and maintained, tested and operated by WFF in accordance with U. S. Navy Document “NAEC Engineering Document 91-7824 Rev G of 14 Jan 93”. This arresting gear is specifically related to WFF support for U.S. Navy programs.

During certain Patuxent River Naval Air Station scheduled test flights, the arresting gear is in battery (i.e., arresting cables under tension across the runway). SMALL AIRCRAFT SHOULD AVOID ROLLING ACROSS THE CABLES WHEN THE GEAR IS IN BATTERY.

2.1.10 Instrument Approach Procedures

Instrument approaches to WFF shall be made under approved procedures as published in current flight information publications (FLIP). The WFF airfield (KWAL) has seven FAA approved instrument approaches. There are two (2) VOR/DME or TACAN approaches, one to runway 17 utilizing the Snow Hill (SWL) VORTAC and another to runway 10 utilizing the Salisbury VORTAC (SBY). There are also six (6) RNAV GPS approaches; one each for runways 04/22, 10/28, and 17/35.

Missed approach procedures shall be conducted as depicted in flight information publications unless otherwise directed by approach control or WFF CTOs.

All NAVAIDS and instrument approaches are flight checked and maintained by the FAA and published along with any waivers or deviations in FAA/DoD approved approach procedure publications.

2.1.11 Obstruction Evaluation

When proposed structures are presented to Wallops Flight Facility Airfield they should be forwarded for evaluation of any Part 77 penetrations to the Air Traffic Obstacle Evaluation Program Office of the FAA. The FAA offers a web based “Notice Criteria Tool” on their website oeaaa.faa.gov to determine if necessary to file for an aeronautical study of the structure and obstruction evaluation.

The requirements for filing with the Federal Aviation Administration for proposed structures vary based on a number of factors: height, proximity to an airport, location, and frequencies emitted from the structure, etc. For more details, please reference CFR Title 14 Part 77.9. You must file with the FAA at least 45 days prior to construction if:

- your structure will exceed 200ft above ground level
- your structure will be in proximity to an airport and will exceed the slope ratio
- your structure involves construction of a traverseway (i.e. highway, railroad, waterway etc...) and once adjusted upward with the appropriate vertical distance would exceed a standard of 77.9(a) or (b)
• your structure will emit frequencies, and does not meet the conditions of the FAA Co-location Policy

• your structure will be in an instrument approach area and might exceed part 77 Subpart C

• your proposed structure will be in proximity to a navigation facility and may impact the assurance of navigation signal reception

• your structure will be on an airport or heliport

• filing has been requested by the FAA

If additional information regarding the filing requirements for the structure are required, please identify and contact the appropriate FAA representative using the Air Traffic Areas of Responsibility map for Off Airport construction, or contact the FAA Airports Region / District Office for On Airport construction.

Wallops Flight Facility Airfield, KWAL falls under the Eastern Region’s jurisdiction of the FAA and can be contacted via:

Federal Aviation Administration
Eastern Region
Airports Division (AEA-600)
1 Aviation Plaza
Jamaica, NY 11434
Phone: (718) 553-3330
Fax: (718) 995-5694
http://www.faa.gov/airports/eastern/

2.2 Aircraft Parking Areas

2.2.1 N-159 Ramp
Generally, all WFF owned or operated aircraft, visiting research aircraft, range support aircraft, transient civilian, and military aircraft shall be marshaled into position when parking on the N-159 ramp during the regular workday. Beyond the regular workday, or when a marshal er is not available, all visiting aircraft are required to remain east of the double red line for any engine operation and refueling. The double red line is located approximately 150 feet east of the N-159 hangar and spans the full North-South length of the ramp.

2.2.2 Base of A-1 -Airport Traffic Control Tower (ATCT)
The Naval Search and Rescue (SAR) helicopter shall be parked due east of the base of the tower, Building A-1.

2.2.3 D-1 Ramp
When Navy FCLP training is in progress they will stage and utilize the D-1 ramp also available for parking of NASA, military, and project aircraft.
2.3 Airfield Signs, Marking and Lighting Plan

2.3.1 Airfield Signs
The Airfield will provide and maintain a sign system using standards in accordance with the most current version of AC 150/5340, Standards for Airport Sign Systems as a guide. All taxiway signs will use the most current version of AC 150/5345, Specifications for Taxiway and Runway Signs as a guide. Airfield signs are classified as mandatory and informational. The signs listed below will only show examples of such signs as currently used at WFF.

Informational Signs:
Information and guidance signs provide the aircrew or airfield driver with information such as the direction to a taxiway and what taxiway they are on.

a. **Taxiway Direction Sign** indicates the direction of a specific taxiway. Direction signs are black lettering on a yellow background. (See Appendix C Fig C-11)

b. **Taxiway Location Sign** indicates the taxiway you are on. Location signs are yellow lettering on a black background. (See Appendix C Fig C-6)

c. **Runway Exit Signs** are taxiway direction signs located on runways to indicate the location of a specific taxiway at an exit point. (See Appendix C Fig C-7)

Mandatory Signs:
Mandatory signs provide information such as runway designations, VFR hold positions and stopping points. Mandatory signs are white lettering on a red background.

a. **Hold Signs.** Hold signs indicate areas where aircraft and vehicles must stop and get instructions from the ATCT. These signs are located where the hold line markings are painted on the surface of the pavement. Operators must not proceed beyond this sign until given permission from the ATCT. (See Appendix C Fig C-9)

b. **Hold Signs collocated with a Location Sign.** This sign array contains both a hold sign, and taxiway location sign. The sign depicted in Appendix C Fig. C-10 is indicating that the aircrew or driver is located on taxiway A and at the intersection of Runway 04/22.

2.3.2 Airfield Markings
The Airfield will use the most current version of AC 150/5340 as a guide when providing and maintaining marking systems. The markings on the airfield convey information to both aircrew and airfield drivers. All airfield markings are retro reflective and should be easily seen at night when exposed to head lights or landing gear lights. Examples of the markings used at WFF are listed below.

a. **VFR Hold Line.** This marking defines the boundary of the runway safety zone. It consists of two solid yellow lines and two dashed yellow lines. You must have permission from the ATCT to proceed beyond this line. (See Appendix C Fig C-5)

b. **Taxiway/Apron Edge Marking.** This marking defines the boundaries of the load bearing surface. It consists of two continuous solid yellow lines. Aircraft
should not be taxied or towed beyond this line. Airfield drivers should be aware that this defines the aircraft movement area. (See Appendix C Fig C-6 )

**c. Other Pavement Markings.** In addition to airfield markings, there are security markings for areas that are restricted. Restricted areas are marked with a single red line around the area that is restricted.

### 2.3.3 Airfield Lighting Operation

The Airfield will provide and maintain lighting systems using the most current version of AC 150/5340-30, Design and Installation Details for Airport Visual Aids, as a guide. Airfield lighting is operated from the ATCT during normal operating hours (0800-1700 LT) for arriving and departing aircraft in accordance with FAA Order 7110.65, Air Traffic Control Handbook. Wallops Flight Facility is also equipped with pilot remote controlled lighting and is activated via a series of microphone (Mic) clicks performed by inbound pilots on the KWAL CTAF, VHF 126.5.

- Three Mic Clicks – Lowest intensity
- Five Mic Clicks – Medium intensity
- Seven Mic Clicks – Highest intensity

### 2.3.4 Rotating Beacon

A standard civil rotating beacon indicating lighted land airfield is located on the D-1 hangar, which is located 300 yards west of the Control Tower.

### 2.3.5 Obstruction Lights

There are numerous towers, antennae, and various other obstructions within the Air Traffic Area (ATA) of the WFF Airfield that are clearly marked with red obstruction lights. See the following obstruction chart in Figure 2.3 for location of each ATA obstruction.
2.3.6 Taxiway Lights Description
Taxiways A and E, including all runway turn-off exits for parallel runways 10/28 and 04/22, are equipped with blue taxiway lights (See Appendix C Figs. C-2, C-4). The taxiway parallel to the east of runway 17/35 is permanently inactive.

2.3.7 Runway Lights Description
All WFF runways, 10/28, 17/35 and 04/22 are lighted. These runways are equipped with variable high-intensity white runway lights (HIRL) installed the full length of the runways except for Federal Aviation Administration (FAA) required amber colored lights installed along the final 2000 feet. Runways have Runway End Identification Lights (REIL) and Precision Approach Path Indicator (PAPI) lights on the left side of all approach ends (See Appendix C Figs. C-1, C-3).

2.3.8 Windsocks
Windsocks are located near the approach end of the runways and in the center of the airfield. These socks indicate direction of the wind for velocities in excess of three knots. The windsocks located just north of the approach end of runway 10 and above the ATCT are lighted for night operations. Windsocks are inspected daily and replaced as needed.
2.3.9 **Light Gun Signals**

As a backup to normal communications to compensate for a malfunction of radio equipment, the WFF Control Tower is equipped with standard FAA air traffic control directional lights for signaling pilots, when necessary. See Figure 2.4.

<table>
<thead>
<tr>
<th>Color and type of signal</th>
<th>Aircraft on the ground</th>
<th>Aircraft in flight</th>
<th>Movement of vehicles, equipment, and personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steady green</td>
<td>Cleared for takeoff</td>
<td>Cleared to land</td>
<td>Cleared to cross; proceed; go</td>
</tr>
<tr>
<td>Flashing green</td>
<td>Cleared to taxi</td>
<td>Return for landing (to be followed by steady green)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Steady red</td>
<td>Stop</td>
<td>Give way to other aircraft and continue circling</td>
<td>Stop</td>
</tr>
<tr>
<td>Flashing red</td>
<td>Taxi clear of landing area or runway in use.</td>
<td>Airfield unsafe DO NOT LAND</td>
<td>Clear the taxiway/runway</td>
</tr>
<tr>
<td>Flashing white</td>
<td>Return to starting point on airfield</td>
<td>Not applicable</td>
<td>Return to starting point on airfield</td>
</tr>
<tr>
<td>Alternating Red and Green</td>
<td>General Warning Signal- Exercise Extreme Caution</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 2.4: ATCT Light Gun Signals**

2.3.10 **Maintenance of marking, signs, and lighting systems**

Each marking, sign, and lighting system installed on the airfield will be properly maintained by leaning, replacing, or repairing any faded, missing, or nonfunctional item. Items will also be maintained unobscured and clearly visible to provide an accurate reference to airfield users.

Lighting systems will use the most current version of AC 150/5340, Maintenance of Airport Visual Aid Facilities as a guide. Discrepancies, outages and corrective actions shall be initiated by the AFM or designee and recorded on the daily and weekly self-inspection reports. If the AA and/or the AFM determines that the outage may possibly impact airfield users, information concerning the outage shall be disseminated locally to the WFF CTOs and any local flight operations. If an entire lighting system is inoperable or out of service, an airfield condition report NOTAM will be issued.

2.4 **WFF Airfield Operations**

2.4.1 **Airport Traffic Control Tower (ATCT)**

The WFF ATCT is operated by FAA-certified Control Tower Operators (CTO) IAW FAA regulations and current Letters of Agreement between WFF ATCT and external agencies. WFF ATCT is manned from 0800-1700, Monday through Friday, federal holidays excluded. In order to enhance airfield safety beyond the above routine times, the Airfield Operations Manager may extend tower operation.
whenever research activity is in progress or when multiple aircraft operations are scheduled in proximity to each other. Any adjustment to tower hours will be published/disseminated via a Notice to Airmen (NOTAM).

The ATCT shall develop opening/closing procedures as required to ensure that all equipment that affects aircraft operations is in functioning status and condition. CTOs shall document this information in the Daily Tower Log and ensure that pertinent equipment performance issues are passed to the appropriate agencies.

2.4.2 Airfield Self Inspections

Airfield Operations and CFR personnel inspect the WFF runway pavement surfaces daily to detect surface abnormalities such as debris from pavement deterioration and breakup, FOD as a result of maintenance or project activity, dead animals and birds, inoperative vehicular traffic lights, or downed signs, or other abnormalities. Airfield inspection reports are submitted to the Airfield Operations Manager, Airfield Operations, CTO Lead, and Facilities Management Branch (FMB) immediately after completion of each inspection. The Airfield Operations Manager and operations personnel also conduct periodic airfield inspections. Airfield inspection reports are maintained by Airfield Operations. The process for conducting a WFF airfield biennial self-inspection is comprised of conducting an annual review of all airfield self-inspection reports in addition to the continuous annual review of all major airfield processes described in Section 2.4.9.

CFR personnel visually inspect airfield lighting on a weekly basis, including the local area obstruction lights (on towers, antennas, buildings, etc.). An airfield lighting report is submitted to the Airfield Operations Manager, Airfield Operations, CTO Lead, and FMB for each inspection. Additionally, light outages that are published on the standard approach plates are reported directly to the Eastern Region Flight Service Station via NOTAM.

WFF Airfield grass height is maintained to optimize aircraft safety and minimize FOD and bird activity in accordance with the WFF Wildlife Management Plan. Excessive grass height, especially around all lighting systems shall be reported and noted on the daily lighting inspection report. Plant growth impacting a required line-of-sight, physical security of the airfield, or the integrity of a facility, shall be removed or cut down as it develops.

2.4.3 Airfield Personnel Training

Airfield training is conducted to ensure training of personnel who perform duties in compliance with the Airfield Operations Manual. Training is provided prior to initial performance of tasks to equip airfield personnel with sufficient resources to accomplish their activities and ensure operations personnel are qualified to carry out their duties.

Airfield personnel training is captured in employee specific airfield training folders maintained by Airfield Operations. Airfield training folders contain employee identification information, records of the employee’s required training and records of any additional optional training completed. Annual training is completed for HAZMAT, Hearing Conservation, Medical Stations, Fork Lift review and Airfield Operations Manual Review. Employee specific certifications (such as First Aid/CPR, fire protection and Fork Lift Operator) are completed based on their
respective validity/expiration periods. Required Agency level training is captured in SATERN. Additionally, employers may maintain employer training records to track employer specific training requirements, education records and training and/or certifications identified in their respective Statement of Work.

2.4.4 Foreign Object Debris Prevention
The WFF Airfield Foreign Object Debris (FOD) prevention policy encompasses three specific categories for FOD control. The first category involves ensuring that the airfield operating area pavement surfaces are clear of debris that could damage aircraft. This is accomplished by mandatory daily safety inspections, or by reports from CTOs, aircraft pilots, and others. Also, special vacuum sweeping is routinely called for by Airfield Operations whenever high performance jet operations, that are normally vulnerable to FOD, are scheduled at the WFF Airfield. The second category is implemented through the WFF Airfield Driver Training, educating airfield users to be aware of and how to eliminate FOD hazards. The third category involves hangar FOD safety programs, including tool control, which are managed by aircraft maintenance organizations and overseen by industrial and aviation safety officials. Transient aircraft maintenance personnel are responsible for ensuring that they present no FOD hazards to their aircraft and surrounding work areas.

2.4.5 Wildlife Management Plan
The importance of providing a safe environment for aircraft operations is readily recognized. Wildlife is one of the more serious threats to the safety of aircraft when various species periodically occupy the same airspace and pavement areas as aircraft. In an effort to remedy this problem, WFF has entered into an interagency agreement with the U.S. Department of Agriculture (USDA) to develop a Wildlife Management Plan (36FC1-PLAN-007534). The plan incorporates WFF’s previous Wildlife Hazard Control Program and the implementation of a more focused effort provided by the USDA.

2.4.6 Common Traffic Advisory Frequency (CTAF)
During periods when the Control Tower is unmanned, Wallops Flight Facility operates as an uncontrolled airfield with ATIS weather information and Pilot Controlled Lighting (PCL). Pilots shall adhere to FAA AC No. 90-42F, “Traffic Advisory Practices at Airports without Operating Control Towers”, and PCL is governed by FCC Rule 87.187y.

Wallops Flight Facility Emergency Services (Security and Crash, Fire, Rescue) monitor the CTAF and will respond appropriately to communications over the CTAF.

2.4.7 Tower/CTAF Handoff
When airfield operations change (tower closes, tower opens, or shift change for CTO’s) an update will be provided to the established distribution list. This update is communicated through completion of the Airfield Status Record 830-AOF-0501 (see Appendix D). The form is completed as required and distributed. All blanks on the form should be completed and personnel are encouraged to use the comment section to note any items of interest.
2.4.8 NOTAM Issuance
A NOTAM Request Form 830-AOF-0503 (See Appendix G) should be completed/submitted to request authorization of a NOTAM. All NOTAMs will be published under the jurisdiction of the Assistant Airfield Operations Manager (AAFM). NOTAM requests may be made by Tower, Airfield Ops, or WFF Range support via email at wffkwalops@mail.nasa.gov or by telephone at (757)-824-1688. WFF Airfield Operations, ATCT and WFF Dispatch shall maintain a current log of all NOTAMs related to the WFF airfield.

All NOTAMs shall be documented on the KWAL NOTAM Log maintained by Airfield Operations once confirmation of publication has been made via the FAA’s NOTAM search website at [https://notams.aim.faa.gov/notamSearch/](https://notams.aim.faa.gov/notamSearch/). Additionally, any users of KWAL should refer to the aforementioned website for all NOTAMs affecting flight operations. In the event Airfield Operations personnel are unavailable, the WFF ATCT Chief may issue NOTAMs by authority of the WFF Airfield Operations Manager.

2.4.9 Waivers
As the owner operator of the airfield NASA is responsible for waivers concerning the airfield and its facilities. See current waivers listed in Appendix I.

2.4.10 Airfield Status Review and QA process reviews
The NASA WFF AA will brief WFF management at least quarterly on the current status, issues, and risks associated with the airfield. The brief will address personnel, fiscal, institutional, maintenance, and operational aspects of the airfield. The brief will also include an update on the airfield QA process reviews. The AA conducts a monthly QA process review to ensure all major areas of the airfield are reviewed on an annual basis. The areas reviewed annually are listed below. The specific review area for each month may vary at the discretion of the AA. The AA maintains the schedule.

<table>
<thead>
<tr>
<th>Jan – Mishap Plan</th>
<th>May – Wildlife program</th>
<th>Sep – Driver Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb – Fueling</td>
<td>Jun – PPR/NOTAM/Permits</td>
<td>Oct – Airfield Ops</td>
</tr>
<tr>
<td>Mar – AOM</td>
<td>Jul – Airfield Self Inspections</td>
<td>Nov – Lights/Markings</td>
</tr>
<tr>
<td>Apr – Training</td>
<td>Aug – Airfield Constr/Maint</td>
<td>Dec – Customer Sat</td>
</tr>
</tbody>
</table>

2.4.11 Outages
There is no schedule of routine preventative maintenance outages. Any maintenance that entails the shutdown of ATCALS/Lighting shall be scheduled during periods of weather forecast to remain better than minimums for visual approaches and least traffic activity.

Unscheduled power and communications outages shall be reported to the appropriate authority. These and similar anomalies shall be recorded in the Daily Tower Log.

2.4.12 Meteorological Services
Meteorological services to include weather briefings, consultations and the following products are routinely available from 0730 LT through 1630 LT daily, Monday through Friday, federal holidays excluded. Services include monitoring and augmenting the continuously operating National Weather Service (NWS) Automated Surface Observing System (ASOS), which provides weather
observation reports of WFF meteorological conditions for worldwide dissemination. Meteorologist augmentation of ASOS data takes place from 0730 LT through 1630 LT daily, Monday through Friday, federal holidays excluded. Weather data, including satellite, radar and regional NWS warning and advisory data is transmitted to the Meteorological Office via satellite downlink to the Leading Environmental Analysis and Display System (LEADS), providing continuous, real-time, worldwide weather information. Other services include pilot weather reports, surface map and upper air analyses, terminal weather forecasts, local weather warnings and advisories, plus numerous other related services. Climatological data is available upon request.

Weather information on the WFF closed circuit television system is as follows:

- **Channel 42.1** - Daily live TV weather briefing starting at 1000 LT. Routine display of weather radar and satellite information.
- **Channel 7.2** - Observed weather data from Wallops Island and the Main Base with scrolling abbreviated weather forecast, range schedule, and upper level winds.
- **Channel 40.1** - National Lightning Detection Network display.

A recorded telephone weather forecast, which is updated at 1000 LT and 1400 LT daily on normal workdays, is available at Extension 2291 or at (757) 824-2291. Real-time ASOS weather observation data is available by dialing (757) 824-0820. Pilots may access this data via ATIS on 119.175 MHz.

Additionally, the Meteorological Office offers printed and faxed 12-hour and 36-hour forecasts at 1000 LT and 1400 LT, respectively, in addition to a Three Day Weather Risk chart available via e-mail at 1500 LT. After normal working hours or at any other time, aviation weather and forecast information may be obtained by calling the Eastern Region Flight Service Station at 1-800-992-7433.

### 2.4.13 Fuel Services

Fuel services are provided IAW WFF Aircraft Fueling Procedures WI during normal duty hours (Monday through Friday, 0800-1630LT). After hours fueling is available and shall be requested/scheduled through Airfield Operations. The tower will page fuelers or dial x1185 if there is no reply to the page.

Government owned, operated, or leased aircraft, and civilian aircraft engaged in projects may be refueled at WFF. The following are acceptable methods of payment for fuel:

- U.S. Government Air cards
- Visa
- MasterCard
- Multi Service Card
- Funding established in advance that is normally related to existing approved projects and/or programs at WFF

Pilots requiring fuel after hours may establish a schedule through their assigned WFF Project Manager or Airfield Operations. To facilitate the procurement of fuel, the person initiating the request should specify the type of aircraft, time, date, location on the airfield, type of fuel required, estimated number of gallons...
required, requestor’s name and related program. Fueling contractors provide standby fuelers via cell or home phone.

An assigned crewmember of the aircraft shall operate the fueling nozzle. Under certain circumstances (on a case by case basis) exceptions can be made. In circumstances where single piloted aircraft are involved, an additional person to operate the fuel nozzle may be provided by WFF. Under these conditions, however, the pilot shall be expected to oversee the refueling operation.

2.4.14 Oxygen
Both liquid oxygen and gaseous breathing oxygen are available to official business and project-related aircraft with prior coordination.

2.5 Hangar and Service Facilities

2.5.1 Hangar Space
Hangar space is limited to NASA owned or operated aircraft and to those aircraft involved in research and/or a project at the WFF Airfield. The need or requirement for hangar space must be requested in advance from the assigned Project Manager or Airfield Operations.

2.5.2 Project Office and Lab Space
Office and lab space is available for approved aircraft projects. These rooms vary in size and are located in the N-159 and/or D-1 hangar facilities. Reservations for this space must be requested in advance from the assigned PM or Airfield Operations.

2.5.3 Repair Facilities
The WFF Airfield Facility is not equipped to provide other than minor or limited repairs to transient aircraft. Normally, project research entities shall provide their own maintenance personnel when engaged in flight operations at WFF.

2.5.4 Aircraft Washing and Cleaning
Aircraft rinsing or washing must be performed only at the Airfield Environmental Isolation Pit located immediately west of Hangar D-1. Before beginning aircraft washing and cleaning operations, the valve at the oil/water separator system must be positioned for directing the runoff flow to the sewage treatment plant. In this position all wash water will flow via the oil/water separator system. Cleaning agents must meet standards of WFF’s Virginia Pollutant Discharge Elimination Systems (VPDES) permit and be approved by the Facilities Management Branch. When aircraft washing and cleaning operations are completed, the valve at the oil/water separator system must be returned to the normal rainwater drain position.

2.5.5 Flight Planning Service
A Visiting Pilot Brief Sheet can be forwarded with all Prior Permission Required (PPR) requests and includes key information for aircraft operations at the WFF Airfield. Flight plans can be filed by phone to the FAA at 800-992-7433. Airfield

Check the Aircraft Office Controlled Documents List at https://code830.wff.nasa.gov/ to verify that this is the correct version prior to use.
operations can provide a conference room, as well as telephone and computer access for flight planning upon request.

2.5.6 Cafeteria Service
Cafeteria service is available in Building E-2, Monday through Friday, federal holidays excluded. Breakfast is available 0700-0900 LT and lunch is available 1100-1300 LT. There is no dinner service.

2.5.7 Medical Facilities
A fully equipped first aid and emergency treatment facility is located in Building F-160. Both a medical doctor and a nurse are on duty during normal working hours Monday through Friday (0800-1630 LT). Additionally, a WFF CFR duty crew, located at Building B-129, is staffed with Emergency Medical Technician (EMT) qualified personnel and is available when needed. The nearest fully equipped hospitals to WFF are Atlantic General Hospital in Berlin, Maryland; Peninsula Regional Medical Center in Salisbury, Maryland; and Riverside Shore Memorial Hospital in Nassawadox, Virginia.

2.5.8 Ground Support Equipment
WFF does not operate a transient line service and minimal GSE is available. Projects or transient aircraft should consult with Airfield Operations prior to arrival to ensure your needs can be met. Generally, all ground support equipment will be used according to design for the particular aircraft or system and will not be modified for other purposes.

2.6 Course Rules

2.6.1 VFR Pattern Entry
For aircraft separation, bird avoidance, and noise abatement purposes, pilots shall normally enter the VFR traffic patterns at 1,500 AGL for large or heavy aircraft, 1,000 feet AGL for light aircraft, and 500 feet AGL for helicopters. Pilots requiring traffic pattern altitudes other than these shall request those patterns from the CTO. The standard VFR traffic pattern for WFF Airfield is left closed traffic.

2.6.2 Pilot Requests for Off-Duty Runway
In the event that a landing is requested for an off-duty runway, the traffic pattern shall be a standard left-hand pattern, unless modified by the CTO.

2.6.3 Wave-Offs
In the event of a wave-off where a pilot desires to remain in the landing pattern, pilots shall normally fly aircraft straight out to an altitude of at least 500 feet above the airfield on the assigned runway heading and turn downwind when traffic permits. For an aircraft waving off and departing the airfield traffic area, the wave-off and departure pattern is depicted in Figure 4-1 or as directed by the ATCT.
2.6.4 Research Aircraft Patterns
Aircraft at the Wallops Flight Facility engaged in research, systems checkout and evaluation, or other mission-specific activities, shall be flown at altitudes, patterns, and speeds according to approved project and safety documentation and as coordinated with the CTO. Even though research operations shall normally have priority over other traffic, research pilots are required to maintain a continuous communication link with the ATCT.

2.6.5 Practice Landing Pattern
Pilot training in the form of practice landings and approaches must be pre-coordinated with the tower and will be approved on a non-interference basis with project operations. Traffic patterns shall be as described in this chapter unless modified by the CTO. Also, R-6604 activity may require pattern modifications.

Unless otherwise directed all aircraft shall maintain runway heading to an altitude of not less than 500 feet before commencing turn to pattern altitude.

2.6.6 Helicopter Operations and Maneuvers in the Airfield Traffic Area
Research projects involving helicopter flights shall be conducted in accordance with approved project and safety documentation. All routine helicopter flight operations, including take-offs, landings, hovering, air taxiing and ground taxiing shall normally be conducted over hard-surfaced areas. Touch-and-go practice landings will be dictated by other air traffic activity and as approved by the CTO. Landing practice may be approved on an off-duty runway whenever the tail wind does not exceed 5 knots. Helicopters, other than those on floats and skids, shall ground taxi in and out of congested line areas instead of air taxiing. While air taxiing, helicopters shall avoid other aircraft, vehicles, and obstructions laterally by 200 feet, and when airborne, shall avoid flying over parked aircraft and vehicles, or passing within 200 feet of buildings or fixed obstacles. Helicopters shall avoid overflight of other airborne aircraft, and avoid take-offs and landings through the same airspace below and behind other airborne traffic for 1 to 2 minutes.

2.6.7 Special VFR Operations
After coordination with Patuxent Approach Control, the ATCT will have authority to conduct Special VFR operations in accordance with the procedures contained in FAA Order 7110.65 within the WFF Airfield Class D Surface Area from the surface to 2,500 feet MSL.

2.6.8 Practice Auto-rotations
Practice auto-rotations must be approved by the duty CTO and shall be subject to the following restrictions:

a. Practice auto-rotations shall be made over hard surface areas and where specified.

b. Procedures shall be performed according to procedures outlined in the appropriate flight manual.

c. A CFR vehicle must be on standby during practice auto-rotations.
d. Practice auto-rotations shall not be allowed during periods when turbulent and variable wind conditions prevail, or when the pilot is aware that the reported wind creates a hazardous situation for this type of operation.

2.6.9 UAS Operations
UAS (Unmanned Aircraft System) operations occur at WFF airfield and shall be NOTAMed. UAS and aircraft operations are mutually exclusive. Priorities are IAW FAA Order 7110.65. UAS procedures are IAW NASA NPR 7900 Chapter 5.

2.6.10 Field Carrier Landing Practice (FCLP) Operations
WFF Airfield is outfitted with a simulated carrier deck on runway 10/28 solely for E-2/C-2 FCLP Training. Pilots in the vicinity of WFF should exercise caution at times of FCLP training evolutions as the pattern altitude is other than standard. WFF ATCT is the ultimate authority for Class D airspace during periods of FCLP training and shall coordinate other arrivals, departures and overflights IAW FAA Order 7110.65 and NASA safety directives.

2.6.11 Aircraft Emergencies
Manned aircraft declaring an emergency shall take priority over any other aircraft operation at WFF and handled by ATCT IAW FAA Order 7110.65. Manned and unmanned aircraft emergencies will be accommodated in accordance with the WFF Airfield Mishap Response Plan (830-AMRP-0001) and Appendix J of this manual.

ATCT personnel shall initiate assistance and notifications via the Crash Phone as soon as enough information has been received on which to act. If the tower is closed, the fire department and/or crash, fire, rescue shall communicate directly with the aircraft. This information shall also be documented in the daily log by the ATCT or by the dispatcher when the tower is closed.

Minimum information required to activate the Crash Phone is type of aircraft and the nature of emergency. CTO shall obtain and disseminate as much of the following information as possible.

a. Aircraft call sign
b. Type of aircraft
c. Nature of emergency
d. ETA
e. Pilot's intentions
f. Appropriate runway or location
g. Total Number of souls on board
h. Fuel on board
i. Pounds of fuel and any hazardous cargo on board

The Crash Phone will be activated under any of the following conditions:

a. Aircraft declares an emergency
b. A MAYDAY or PAN-PAN call is received
c. Aircraft declares a forced landing
d. Aircraft accident occurs or is suspected
e. A flight control problem of any type
f. A hydraulics malfunction that results in a reliance on a sole remaining system for flight controls
g. An engine-out landing for multi-engine aircraft
h. Any time fire or smoke is reported or suspected on an aircraft
i. A leak of any flammable or hazardous material
j. Any condition which causes pilot reported overheating of engines or fluids
k. Hot brakes are reported or observed
l. No radio conditions, unless nonverbal communications verify emergency conditions do not exist (for example, the tower instructs aircraft to flash landing light if no emergency exists, and the aircraft flashes a landing light).

Anytime there may be doubt that a situation constitutes an emergency, it should be handled as though it is an emergency.

If the primary Crash Phone is out of service, the Land Mobile Radio (LMR) shall become the secondary crash alarm system. When the Crash Phone fails, the tower shall announce on the Tower net all pertinent emergency information. All emergency coordination and lines of authority on the airfield during an emergency shall be IAW WFF Airfield Mishap Response Plan (830-AMRP-0001) and Appendix J of this manual. A full scale airfield emergency plan exercise is conducted at least once every 24 consecutive calendar months.

2.7 Taxi Instructions

2.7.1 Taxi Procedures During Control Tower Operating Hours
All aircraft shall obtain taxi clearance from the ATCT for taxiing during normal Control Tower operating hours.

2.7.2 Taxi Procedures When Control Tower Is Unmanned
After normal tower operating hours, pilots shall obtain local weather information via the ATIS on 119.175 or 757-824-0820 (ASOS), verify the status of R6604, review NOTAM information, and communicate all aircraft movement and intentions via CTAF.

Runway selection and taxing procedures shall be IAW FAA and DoD regulations governing uncontrolled airfields.

2.8 Take-Off and Departure Instructions

a. Normally, take-offs shall not be permitted at the WFF Airfield unless the aircraft has a functioning two-way radio. Any deviation from this requirement shall require prior arrangement between the pilot and the CTO or Airfield Operations Manager. A take-off without two-way radio communications may be authorized to permit the pilot of a visiting aircraft to proceed to a home base or other base for corrective maintenance.
b. Take-offs that adversely affect active research projects shall generally be denied to any aircraft other than official NASA aircraft engaged in project support or other similar flights.

c. High performance climbs and dives are not authorized unless previously scheduled or included in the operational phase of a research project operating under approved project and safety documentation.

d. Mid-field or intersection take-offs may be permitted upon pilot’s request.

e. Take-offs when the ATCT is unmanned shall be announced on WFF CTAF (126.5) as previously explained.

f. Helicopter take-offs shall be controlled as directed by the CTO during hours of normal tower operations and communicated on CTAF during periods when the tower is closed. The normal helicopter departure pattern will be conducted so as not to affect or interfere with fixed-wing aircraft. Also, helicopters will not normally cross the runway in use. Unless otherwise specified, helicopters will depart the WFF airfield traffic area at an altitude of no less than 300 and no more than 500 feet. Additionally, helicopters shall maneuver to bypass the housing area in the southwest quadrant of the Wallops Flight Facility.

g. It is recommended that all aircraft, but mandatory for heavy multi-engine aircraft, depart on runway headings at a minimum of 1000 feet before commencing a turn. An exception will apply when an aircraft is engaged in research and operating under approved project and safety documentation. Also, high-powered, steeply banked, low-altitude turns shall not be permitted unless included in approved project and safety documentation or under emergency conditions.

2.9 Landing Instructions

2.9.1 Initial Radio Contact
Pilots shall call the ATCT for landing instructions before entering the airfield traffic area during the hours when the Control Tower is manned. During periods when the Control Tower is unmanned, pilots shall contact WFF CTAF for landing information IAW FAA AC 90-42F.

2.9.2 Traffic Pattern Air Speed
Maximum air speed within the airfield traffic area is 200 knots for turbine-powered and reciprocating engine aircraft, except as provided in TITLE 14 CFR 91.117 and as pertains to the minimum safe air speed for particular aircraft operations. Maximum air speeds for research aircraft shall be as established and published in supporting documentation, if greater than the above listed air speeds.

2.9.3 Formation Landings
Formation landings are prohibited except in the case of chase aircraft engaged in research operations and approved in applicable documentation.
2.10 Training

2.10.1 Approval
Touch and go landing practice may be granted to individual military aircraft by PPR approval on a day-to-day non-interference basis during normal ATCT operating hours. Wholesale organizational use of WFF airfield for regular touch and go practice must be coordinated and approved in advance. NASA aircraft may be cleared for landing practice by the ATCT as conditions permit. Landing practice will not normally be authorized while a research project operation is in progress at either the airfield or within the airfield traffic area.

2.10.2 Instrument Approaches
During normal tower operating hours, aircraft may be cleared for practice instrument approaches, including low passes over the airfield, and simulated missed approaches, through clearance from the ATCT when traffic conditions permit.

2.10.3 Simulated Emergencies
Any planned training or practice involving simulated engine failures during take-offs and landings, shall be conducted with a qualified aircraft commander, instructor pilot, or proficiency flight examiner occupying one of the pilots’ seats and actively supervising the operation.

2.11 Simultaneous Runway Use
Under certain conditions and when requested by a pilot and cleared by the ATCT IAW FAA Order 7110.65, aircraft operations may be performed on two different runways simultaneously. During periods of simultaneous operations, pilots shall be especially alert to the CTO’s instructions concerning other traffic. With respect to off-duty runway use, no pilot shall use an off-duty runway when the crosswind component exceeds the maximum allowable component for the type aircraft involved, or when there is a tailwind that exceeds 10 knots. As usual an aircraft operating under an approved operations document would be allowed an exception. Land and Hold Short Operations (LAHSO) are not authorized at KWAL.

2.12 Night Operations
Both the ATCT and CTAF locations are equipped with airfield lighting controls. Airfield lighting may be provided upon pilot request for other than nighttime operations. With certain requested exceptions, appropriate lighting is routinely provided for all nighttime operations. Exceptions would be conducted in accordance with an operations document related to a research operation and would require the ATCT to be manned.

Because of inherent wildlife hazards nighttime touch-and-go training is not normally permitted at the WFF Airfield. Exceptions must be via special approval after an appropriate safety review or documented in an approved project and/or safety documentation, and with the ATCT manned.
2.13 **Aerobatic Flight**

Aerobatic flying is not normally authorized within the WFF airfield traffic area. Any "G" factor (factor of the force of gravity) that exceeds 2 Gs, angle of bank in excess of 60 degrees, or pitch angle greater than 30 degrees is considered acrobatic flight. This restriction does not apply to research type flights whereby specified maneuvers are documented in an approved operations document, or to an officially approved flight demonstration.

2.14 **Fuel Dumping**

Fuel dumping shall not be conducted in the WFF airfield traffic area.

2.15 **Towing**

Tow drops will not be permitted except as documented under an approved operations document and AA or AFM approval.
Section 3. Foreign Object Debris

3.1 Prevention

The WFF Airfield Foreign Object Debris (FOD) prevention policy encompasses three specific categories for FOD control. The first category involves ensuring that the airfield operating area pavement surfaces are clear of debris that could damage aircraft. This is accomplished by mandatory daily safety inspections, or by reports from CTOs, aircraft pilots, and others. Also, special vacuum sweeping is routinely called for by Airfield Operations whenever high performance jet operations, that are normally vulnerable to FOD, are scheduled at the WFF Airfield. The second category is implemented through the WFF Airfield Driver Training, educating airfield users to be aware of and how to eliminate FOD hazards. The third category involves hangar FOD safety programs, including tool control, which are managed by aircraft maintenance organizations and overseen by industrial and aviation safety officials. Transient aircraft maintenance personnel are responsible for ensuring that they present no FOD hazards to their aircraft and surrounding work areas.

3.2 Control Procedures

The following subsections contain procedures and guidelines that apply to all personnel accessing Wallops Flight Facility. These subsections provide the specified guidelines and procedures on managing a comprehensive FOD program at WFF. This procedure is in compliance with the requirements in NPR 7900.3, Aircraft Operations Management Manual, which state a documented FOD control program that addresses the periodicity and inspection criteria to effectively reduce the risk of FOD during flight and maintenance operations shall be established.

3.3 Safety Warning

Jet blasts and prop wash can propel FOD through the airfield environment at high velocities causing extensive amounts of property damage and severely injuring airfield personnel or others in the vicinity of the air operations area (AOA).

3.4 Equipment

The necessary equipment for FOD control include: a friction mat sweeper, power vacuum sweeper and a magnetic bar.

3.5 FOD Training

Each individual with access to the AOA should understand their role in the prevention of FOD. A FOD training presentation is presented in the WFF Airfield Driver Training program. In addition to the WFF Airfield Driver Training program, personnel shall have a general familiarization in the causes and principal contributing factors of FOD, the safety of personnel and property, consequences of ignoring FOD, and the proper care, use, and stowage of materials and equipment used around aircraft or on airfield surfaces.
### 3.6 Inspection

Per 14 CFR Part 139.305 regulations, any mud, dirt, sand, loose aggregate, debris, foreign objects, rubber deposits, and other contaminants must be removed promptly and as completely as practicable. All flight operations personnel and employees shall be constantly on the lookout for material that could be ingested into engines, struck by propeller blades, and/or blown by the exhaust of engines or propellers, causing injury to personnel or damage to aircraft. To accomplish this requirement, the subsequent inspection criteria will be followed:

**a. Daily Visual Inspection of Entire Airfield:** The Airfield Operations Manager or operations personnel shall constantly be vigilant for FOD on all airfield surfaces. A daily inspection of all surfaces shall be conducted at least twice daily. The WFF Fire Department shall conduct a visual inspection of all runways and taxiways twice daily during lighting inspections. A clean-as-you-go work habit will be emphasized thus a general cleanliness way of conducting business will be followed by any personnel performing maintenance or any other tasks on any surface within the AOA.

**b. Weekly General Inspection of Hangar and Ramp Areas:** Per NPR 7900.3 regulations, maintenance personnel shall be assigned to perform a general inspection of hangar and ramp areas for foreign object debris.

**c. Semi-Annual Airfield Sweeping:** At least twice a year, the entire airfield (including all runways, taxiways, ramps, and hangar areas) will be swept. The airfield sweeping should be conducted with a combination of the friction mat sweeper, power vacuum sweeper with magnetic bar attachment, and foreign object debris walks.

**d. Special Events Surface Inspections:** A surface inspection shall be conducted before and after any of the following special events on the airfield: projects (Carrier Landing Practice, Water Ingestion Testing, etc.), airshows, weather (rain, snow, heavy wind), plowing.

A surface inspection will not be done before a weather event; however. When the weather event has concluded, a surface inspection shall be conducted. If any FOD is found at any time during a visual inspection, the inspecting personnel shall immediately remove the FOD and notify the Airfield Operations Manager. A request for sweeping can be turned in to the Airfield Operations Manager and will be fulfilled within a reasonable time frame.

### 3.7 Accessing the Airfield

When accessing the AOA with the approved driving permit, it is the responsibility of the vehicle operator to ensure that FOD is not deposited onto the airfield. Secure all tools, cargo, and loose items on all vehicles that will be entering the movement area. Ensure that any loose items inside the vehicle are secure and will not fall out of vehicle when doors are opened. Check tires for Foreign Objects and Debris (FOD), rocks, and mud prior to driving on any Taxiway, Runway or Ramp. These is also signage at the access points that will serve as a reminder. If there are any questions/concerns about the Foreign Objects Debris program or procedures, contact the Airfield Administrator or the Airfield Operations Manager/Assistant Airfield Operations Manager at: 757-824-1185.

4.1 General Information

The following subsections contain procedures and guidelines that apply to the overall WFF Airfield and include items that protect all personnel, including the public. However, for specific circumstances, when operating at the N-159 ramp or hangar, it is advisable to consult applicable aircraft office documentation, which may contain minor operating variations specific to the N-159 area.

4.2 Ground Vehicular Traffic / Airfield Operational Areas

The portion of the WFF Airfield that encompasses the landing, take off, taxiing, and parking areas for aircraft is the Air Operations Area (AOA). The AOA is a Restricted Area clearly marked with signs and unique pavement markings. Only those personnel necessary to support aircraft/project operations and to provide required security patrol and field maintenance may be authorized access to the AOA. All other pedestrians and personnel are not permitted within the AOA without an escort or without specific permission, successful completion of the mandatory airfield driver training program and the possession of their WFF Airfield Driver Permit.

All personnel that require access the AOA shall first receive approval by submitting the form in Appendix E and successfully complete the mandatory WFF Airfield Driver Training program prior to obtaining a WFF Airfield Driver Permit, accessing the AOA, or operating any vehicle within the AOA. Per requirements in NPR 7900.3, Aircraft Operations Management Manual, the NASA WFF Airfield Operations Manager, or their designee, will provide training for all personnel requiring access to the airfield for official duties. The training will provide for the safe, orderly, and expeditious movement for all motor vehicles and personnel on the airfield. Contact Airfield Operations at 757-824-2049 to schedule the driver training course. Requests for a WFF Airfield Driver Permit must be submitted on the WFF Airfield Driver Permit Request form (830-OAF-0505) and approved by the Airfield Administrator prior to attending the training. The request form is shown in Appendix E and may be obtained from the aircraft office web site.

A WFF Airfield Driver Permit will be issued in one of the 3 distinct levels listed below. Temporary AOA access, visitor access, or access required for project personnel should request the Escort Access and identify estimated duration dates. The WFF Airfield Driver permit, access levels and driving privileges may be rescinded by Airfield Management or an Office Chief if violations occur or if the need for access is not justified:

- **Level 1 - Ramp Access:** The permit holder is authorized to access the D1, B129 and N159 ramp areas during the hours of 0700-1700 when the WFF Airport Traffic Control Tower is in operation. Access includes ramp/aprons, wash rack, aircraft parking areas and hangar access points. Permission from the Airport Traffic Control Tower is required prior to accessing these areas. Annual refresher training is required to maintain a valid permit.

Check the Aircraft Office Controlled Documents List at https://code830.wff.nasa.gov/ to verify that this is the correct version prior to use.
- **Level 2** – Restricted Duty Hour Access: The permit holder is authorized to access runways and taxiways in addition to the Level 1 areas during the hours of 0700-1700 when the WFF Airport Traffic Control Tower is in operation. Permission from the Airport Traffic Control Tower is required prior to accessing these areas. Annual refresher training is required to maintain a valid permit.

- **Level 3** – Unrestricted Access: The permit holder is authorized to access the Level 1 and Level 2 areas during all hours. The permit holder is required to complete training for Common Traffic Advisory Frequency (CTAF) self-announce procedures broadcast on Very High Frequency (VHF) aircraft radios. The permit holder is required to utilize CTAF self-announce procedures when accessing the airfield. Annual refresher training is required to maintain a valid permit.

**Escort Access** - An Escort may be requested when no driving permit will be issued. An airfield operations escort, or their designee, is required for temporary airfield access by project personnel or visitors during the estimated time-frame. A Level 1, 2 or 3 permit holder may be a designated escort.

Ground vehicles using the designated roadway-runway crossing point at Runway 17-35 must comply with roadway signs, the associated traffic control lights, be in contact with the tower (or self-announcing on CTAF when the tower is closed) and otherwise remain clear of the AOA.

Ground vehicles operating on the airfield, including conducting inspections are required to have an operational amber lighted flashing beacon on the top of their vehicle, headlights on, and establish and maintain radio contact with WFF Tower or provide position and intent broadcasts on CTAF frequency when the tower is unmanned. A proper Airfield Driver's Permit, clearance from the tower when it is manned, or proper position and intent broadcasts when the tower is closed are required to access the AOA, move about the AOA, and to depart the AOA. Also, while personnel and/or vehicles are within the AOA, personnel are required to maintain proximity to and monitoring of the vehicular or handheld radio at all times. When stopped on any runway the vehicle engine should remain running, if possible, to ensure an immediate exit from the AOA in the event of an emergency. In all cases, the keys must be left in the ignition of any vehicle parked within the AOA. It is also recommended that vehicles drive in the opposite direction of incoming aircraft when possible to do so.

Handheld LMRs and amber rooftop flashing beacons are available for check out at building B-129 from the duty dispatcher. All beacons must be obtained from the duty dispatcher, or if self-supplied be in accordance with the requirements of FAA AC 150/5210-5D as verified by Airfield Operations. The amber beacon shall be placed on the vehicle's rooftop and remain continuously operational while on the airfield.

Operators of ground vehicles and personnel on foot have the direct responsibility to remain vigilant and clear of vehicles and aircraft operations. Personnel on foot or riding bicycles must have a legitimate business reason for accessing the AOA, are only allowed on the Ramp Areas, and must remain well clear of all aircraft. Instructions for accessing the airfield are listed in Appendix H.

### 4.2.1 Runway Safety Areas
The Runway Safety Areas (RSA) for the WFF airfield is defined as a crossed hold line. If the runway hold line is crossed, the area is a RSA as specified below:

Runway 10/28 – 280 feet from the center line  
All other runways – 250 feet from the center line

All vehicles, including mowers, maintenance and construction vehicles, are to remain clear of the RSA unless authorized. Mowing and ground maintenance of unpaved areas is coordinated with airfield operations. Mowing and/or ground maintenance personnel are to remain clear of RSA. The following guidance in Figure 4.1 is provided to mowing/ground maintenance personnel.

Figure 4.1: WFF Airfield Mowing Guidance

4.3 Hazardous Cargo

Hazardous cargo such as rockets, their components and other dangerous cargo, must be loaded and off-loaded in the designated Hazardous Cargo Loading Area and handled in accordance with existing WFF instructions and regulations. Under certain conditions when approved by appropriate WFF safety officials, loading and off-loading of rocket components may be allowed in certain other specified areas. Only personnel qualified and authorized to handle dangerous materials shall engage in any part or phase of transporting, loading, unloading, or handling hazardous cargo.

Check the Aircraft Office Controlled Documents List at https://code830.wff.nasa.gov/ to verify that this is the correct version prior to use.
This Hazardous Cargo Loading Area is located on the concrete area immediately adjacent to the West side of the Runway 17 approach (see Figure 4-2.)

4.4 Electromagnetic Radiation Hazards for Pyrotechnics

The WFF Frequency Manager must approve all RF emitters prior to activation. The Frequency Manager is responsible for reviewing all transmitting systems relative to interference to existing systems at WFF. Also, the Frequency Manager routes all pertinent data to the Safety Office, Code 803, whose personnel evaluate the potential hazards and impose restrictions to protect personnel, ordnance, and WFF facilities.

4.5 Hydrazine Fuel

Certain military aircraft use hydrazine to drive their Emergency Power Units (EPUs). Occasionally these aircraft visit the WFF airfield for project work or emergency landings than can require the response of trained CFR personnel. WFF CFR personnel are trained in procedures for responding to the presence of hypergolic chemicals, such as hydrazine. Procedures include the use of detection equipment for determining the presence of hydrazine, area security, containment, and arrangement for proper disposition of spills.

4.6 Aircraft Carrying Combat Type Ordnance

Aircraft carrying combat ordnance will be permitted to land and directed to park at the Hazardous Cargo Loading Area at WFF under two conditions: (1) if the operation is covered by approved project and/or safety documentation; or (2) if the pilot has declared an in-flight emergency. In either case, the safety procedures as outlined in 803-WI-8072.1.9, Aircraft Operations with Live Ordnance at Wallops Flight Facility Airfield, shall be fully implemented.
Figure 4.2: Aircraft Parking Areas
Diagram information is uncontrolled when viewed and/or printed in anything other than normal color

Check the Aircraft Office Controlled Documents List at https://code830.wff.nasa.gov/ to verify that this is the correct version prior to use.
4.7 Hazard, Accident, Incident, Mishap Irregularity Reporting

All personnel are encouraged to submit an Aircraft Office Irregularity Report (IR) form (830-AOF-0214) on any unsafe flight-related condition or practice noted within the WFF Airfield vicinity (see Figure 4-2). These reports should be made in writing to the Airfield Administrator, Airfield Operations Manager and Aviation Safety Officer for investigation and follow-up action as necessary.

Figure 4.3: Aircraft Office Irregularity Report Form

Check the Aircraft Office Controlled Documents List at https://code830.wff.nasa.gov/ to verify that this is the correct version prior to use.
4.8 Personnel Authorized to Taxi Aircraft

Only qualified personnel in type (or those under the supervision of an instructor pilot in type) shall be authorized to taxi aircraft. All taxiing shall be done according to the approved taxi checklist and taxi procedures contained in the appropriate pilot's operating handbook or aircraft flight manual. Wing walkers shall be used during taxi operations when in proximity to other parked aircraft, vehicles, buildings, or other obstructions. Taxi speeds shall be maintained within safe operating limits.

4.9 Aircraft Towing

Aircraft towing shall follow the guidelines and procedures established in the appropriate flight manual, pilot's operating handbook, or technical orders for the particular type of aircraft concerned. The following general standards should be applied:

a. A qualified supervisor shall be in charge of each towing operation. Aircraft will not be moved unless a qualified pilot or qualified maintenance person is in the cockpit for the specific purpose of operating the wheel brakes and any other controls necessary for ground operations. Aircraft will not be towed without landing gear pins installed, as applicable.

b. An aircraft window shall be open if available on the pilot's side during the period of the towing operation to allow for conveying instructions, etc., between the cockpit operator and the supervisor.

c. The person in the cockpit shall not release or set the aircraft brakes until instructed by the towing supervisor.

d. Wing walkers shall be employed when towing in proximity to other aircraft or obstructions.

e. When backing an aircraft in congested or confined areas, the supervisor will be positioned in view of the tug operator and cockpit operator.

f. Standard international aircraft marshaling signals shall be applied for towing operations. The maximum allowable towing speed is five miles per hour.

4.10 GSE and Service Vehicles / Flight Lines and Parking Ramps

Ground Support Equipment (GSE) and service vehicles are a necessary and integral part of all aircraft servicing operations. Since these vehicles are required to work in the proximity of parked aircraft and confined spaces, each person must exercise caution when operating this equipment. The following requirements are listed to emphasize the responsibility of the individual operators who are related to the operation, care, supervision, or servicing of this equipment:

a. Only qualified personnel shall operate ground support equipment.

b. Operators of aircraft support vehicles will routinely perform vehicle inspections for defects that could affect safety. Defects should be immediately reported for correction. Crew leaders will not assign nor require personnel to operate any vehicle that has an unsafe condition.

Check the Aircraft Office Controlled Documents List at https://code830.wff.nasa.gov/ to verify that this is the correct version prior to use.
c. Operators will not leave a vehicle with the engine running unless necessary to maintain power for communications equipment, etc. Proper parking procedures will be used such as parking brakes engaged and gear selectors placed in the “park” position.

d. Only qualified flight line equipment operators possessing a valid state vehicle operator’s permits are authorized to operate government self-propelled vehicles within the flight line area.

e. When emergency vehicles are observed approaching from any direction, it is required that other vehicles cautiously stop and avoid obstructing the path of the emergency vehicles, and remain clear of the emergency area.

f. Vehicle operators shall drive at speeds that are reasonable and proper and not exceed the established flight line speed limit of 20 mph.

g. Operators of vehicles shall not operate a vehicle in the reverse direction while in the immediate vicinity of an aircraft unless for the specific purpose of loading or unloading cargo or attaching a tow bar to a vehicle. When backing large vehicles in the direction of an aircraft, the driver shall not begin a backing motion without the help of an assistant for signaling the closing distance between the vehicle and the aircraft.

h. Operators will not park vehicles in front of aircraft prior to engine start-up or leave vehicles in a location where damage might result from jet engine blast effects.

i. Proper and adequate headlights, taillights, and stoplights will be used on all vehicles during the hours of darkness. Vehicle operators will be especially alert for personnel on foot throughout the flight line area.

j. Personnel will not ride on top of any loads of material being transported by vehicles, nor will any person board or exit a vehicle while it is in motion.

k. Equipment, including cranes, forklifts, power units, servicing equipment, etc., will be positioned to ensure that accidental contact with aircraft is avoided. Equipment in the proximity of aircraft will be chocked to prevent inadvertent movement.

l. Power units shall be disconnected from aircraft and the cables properly stowed before movement of either the aircraft or power unit. When the need for a power unit has been satisfied, it shall be returned immediately to the designated parking area.

4.11 Smoking on Flight Lines, Parking Ramps, or Hangar Areas

Smoking is prohibited on the airfield except in designated areas.

4.12 Oxygen Service (Liquid and Gaseous)

Only trained and qualified personnel who have been certified shall be authorized to handle or transfer liquid or gaseous oxygen. The following precautions shall be implemented during servicing activities with oxygen:

a. Aircraft shall not be serviced with oxygen within 50 feet of hangars, structures, or any source of ignition such as hot exhausts, sparks, flames, lighted cigarettes, or ground support equipment operations.

b. The aircraft and oxygen cart must be connected to a certified common ground.

c. Check that external electrical power is disconnected and the battery switch is in the “OFF” position on the aircraft.

d. Aircraft shall not be serviced with fuel or oil during an oxygen servicing operation.
e. Other maintenance shall not be performed on the aircraft during oxygen servicing operations.

f. Personnel shall wear a face shield, full-length apron, hat, and leather or insulated gloves when handling liquid oxygen. If boots are worn, pants legs should be worn outside of the boots. Drip pans or other suitable containers will be positioned under the overflow vents to prevent liquid oxygen from contacting the pavement.

g. Personnel should not handle tubes, fittings, or overflow containers carrying liquid oxygen with bare hands. If skin should freeze to liquid oxygen equipment, separate hand or other body part from oxygen carrying element immediately.

h. Prevent all petroleum products (oil, grease, fuel, etc.) from contacting oxygen equipment.

4.13 Fire Precautions for Flight Lines and Hangar Areas

The following guidelines apply for fire protection on flight lines and hangar areas:

a. The fire department will be notified by the most expeditious means available for all fires occurring on the flight lines or in hangar areas, regardless of size of fire.

b. Before starting engines pilots shall notify WFF Tower/ WFF CTAF on VHF/UHF tower frequency to facilitate a call for assistance should an aircraft fire occur during the engine starting procedure. In the event of an engine fire aircraft radios shall not be turned off until after the engine(s) are shut down.

c. Flight line crew and maintenance personnel shall have, as a minimum, a 50-pound fire extinguisher bottle readily available for immediate use during engine starts. In addition, the services of a firefighting vehicle shall be used for maintenance and operational conditions when additional protection is advisable.

d. Areas providing access to fire extinguishers and fire equipment will be kept clear of other equipment, material, or obstructions.

e. Fuel spills shall be immediately reported to the CFR, who will take immediate action to collect or neutralize the spills. If a spill does occur, maintenance operations will cease and the area will be cleared of personnel.

f. An adequate number of fire extinguishers will be located throughout the flight line area. Extinguishers will be sealed and routinely inspected. Primary inspection responsibility lies with the CFR organization. Personnel will not break fire extinguisher seals unless there is a need to use the extinguisher for fire extinguishing purposes. In the event a fire extinguisher is partially or completely discharged or damaged, the CFR department will be notified immediately and the extinguisher will be recharged, repaired, or replaced. Under no circumstances will the contents of an extinguisher be partially used and put back in service.

g. Drip pans or other approved means to catch oil or fuel spillage will be used in the hangar.

h. Proper and expeditious removal of trash, debris, contaminated oils, fuel, and other fluids from the hangar is required.

i. Proper bonding of aircraft and fuel trucks is required to ensure safe dissipation of electrostatic potential prior to and during fueling and defueling operations. Proper grounding is also required for aircraft parked inside the hangar.

j. Proper placement of power units (maximum distance from aircraft consistent with cable length) and fire extinguishers relative to aircraft location is required.

k. A “Hot Work Permit” is required for welding torch or arc cutting operations in or around the flight lines, hangar, and on aircraft.

l. Aircraft fueling will not normally be conducted within 50 feet of hangars and other buildings. Aircraft will not be fueled, defueled, serviced with oxygen, or undergo
fuel transfer inside hangars. If it becomes necessary to conduct any of the above mentioned activities in a hangar, the activity shall not begin until specific approval is obtained from both the WFF Aviation Safety Officer and Chief, Safety Office through which safety procedures will be established to cover the specific activity. The movement of fuel by the internal aircraft fuel system is not considered a fueling operation.


The WFF Fire Department delivers scalable aircraft rescue and firefighting (ARFF) coverage ranging from a minimum of a National Fire Protection Association (NFPA) Category 4 and a maximum of a NFPA Category 8 depending on the mission including staffing, vehicles and agent required.

ARFF response requirements are dictated by NFPA 403 for equipment and manpower needs. According to NFPA 403 § 4.3.1, the AHJ sets staffing according to the largest scheduled aircraft to fly. Wallops Flight Facility is an Index B, Category 6 when the P-3 is scheduled to fly, but typically an Index A, Category 3 airfield during daily flight operations when the P-3 is off base or stored on the field. An increase in the Index such as when large aircraft are scheduled to arrive or when the NASA P-3 aircraft is expected to exceed the levels specified in FAR 139.315 (c) is coordinated through the Wallops Flight Facility Aircraft Office. There are currently no commercial air carrier operations on the field. Response times for ARFF emergencies are dictated by contract to meet the requirements of both NFPA 403 and FAR 139. Required times include 1 minute from the alarm notification (turnout time) and an aggregate response time (ART) of 5 minutes (1 minute for alarm processing, 1 minute for turnout and 3 minutes travel time) for the first arriving apparatus. The WFF Fire Department maintains three 3000 gallon ARFF major crash vehicles and requisite agent (Aqueous Film Forming Foam and Purple K dry chemical) to meet NFPA 403 apparatus requirements. Internal WFF Fire Department standard operating procedures are in place to meet all emergency response and daily operational needs.

Rescue and firefighting personnel must participate in at least one live-fire drill prior to initial performance of rescue and firefighting duties and then every 12 consecutive calendar months thereafter.

The following guidelines regarding crash, fire and rescue (CFR) standby shall be observed at the WFF Airfield:

The CFR standby point shall be Station 1 (Building B-129) with sufficient personnel and equipment necessary to comply with the National Fire Protection Association recommendations for the particular aircraft operating at the WFF Airfield.

When line service standby is required, line crew personnel shall have, as a minimum, a 50-pound halon fire extinguisher readily available for immediate use for engine starts. Additionally, the services of a CFR vehicle will be provided when requested by the aircraft commander, crewman, or other responsible personnel for engine starts, fueling/defueling operations, etc.

The ATCT shall be notified by the fire department when staffing and/or vehicle constraints cause the airfield fire protection available to fall below accepted levels. Aircraft will be notified and air operations shall be suspended until further guidance is received from the Airfield Operations Manager’s Office or other authority. This does not prevent aircraft in an emergency situation from landing or emergency response aircraft from departing.

Check the Aircraft Office Controlled Documents List at https://code830.wff.nasa.gov/ to verify that this is the correct version prior to use.
Such aircraft will be notified of the condition, and the pilot-in-command will be the sole authority for determining if the operation can be conducted.

In addition to the criteria established in governing documents and plans, the following are authoritative: the WFF Airfield Mishap Response Plan (830-AMRP-0001) and Appendix J of this manual.

4.15 Jacking of Aircraft

Crew chiefs will brief jacking crews before commencing jacking operations. All instructions pertaining to proper and safe procedures will be fully explained and appropriate aircraft manual will be referred to for the type aircraft to be jacked. In addition, the following guidelines shall be applied:

a. Jacks and other equipment must be serviceable and available in proper numbers. Faulty equipment will be “red tagged” and removed from service.
b. Ramp or hangar area must be cleared of equipment and material not needed in the jacking operations, and vehicular traffic will be restricted. For emergency reasons aircraft shall not be jacked in a location whereby an obstruction is created between other aircraft and hangar doors.
c. For aircraft jacking and heavy equipment using outriggers, pads will be appropriately used to protect painted hangar floor surfaces.
d. The supervisor/crew chief will ensure that each member of the jacking crew is qualified and that he is assigned his specific locations and duties.
e. Jacking crews will always include a responsible supervisor/crew chief and a sufficient number of qualified crewmembers to perform the operation safely.
f. The supervisor/crew chief will ensure that the area around the aircraft is cordoned off and appropriate warning signs posted, that adequate safe procedures exist, and that proper checklists are used for all specific jacking activities.
g. Jacking of aircraft is permitted outside the hangar when necessary, e.g., deflated or blown tires, or under certain conditions whereby hangar space is not readily available. Under these conditions, the same procedures as indicated in f. above shall apply, but only if the wind conditions are less than 10 mph.

4.16 Fueling / Defueling, Safety Precautions and Procedures

During aircraft fueling and defueling at the WFF Airfield, the following guidelines shall apply:

a. Prior to fueling or defueling, aircraft shall be bonded with the servicing vehicle. Three-way grounding is not required at the WFF Airfield but may be used when requested.
b. Refueling supervisors, ground power unit operators, and other equipment specialists will be qualified and meet requirements outlined in applicable regulations.
c. Ground power units and other special equipment from which any type of spark, heat, or flame may be emitted will be positioned with consideration for direction of wind, slope of ramp, and location of fuel vents on aircraft. Ground Power Units (GPUs) will be placed at the maximum distance permitted by the length of their power cables and at an angle providing the greatest distance from the aircraft.
Only approved power cables with adequate length will be used during fueling and defueling operations.

d. Fueling or defueling operations will not be conducted within a radius of 100 feet of operating aircraft.

e. Aircraft will not be fueled or defueled inside hangars or within 50 feet of hangars, measured from the fueling/defueling point and/or vents. Under certain conditions, the Aviation Safety Officer or his designated representative may approve a lesser distance.

f. Fueling or defueling operations will be immediately discontinued upon detection of any fuel leakage or seepage of fuel from equipment until necessary repairs are made and fuel spills collected. In the event of a major fuel spill all personnel will depart the area. A guard shall be posted in the vicinity of any major spill to prevent personnel from entering the area until cleanup has been completed. Operations will not be resumed until approved by the WFF Fire Chief. In no instance will any electrical or automotive equipment at the scene resume operations until it has been determined that no further hazard from such spillage exists.

g. Fuel hoses will be periodically inspected and must be in acceptable condition for fueling aircraft.

h. Aircraft will be properly chocked according to applicable directives.

i. Fueling operations shall be suspended and fuel hoses disconnected whenever an electrical storm is within 10 miles of the airfield, during a fire in the vicinity of a nearby aircraft mishap, or aircraft emergency. Additionally, fuel trucks will depart the ramp area.

j. A certified 50-pound halon fire extinguisher (minimum size) will be strategically located near aircraft being serviced.

k. Maintenance will not be performed on an aircraft while the aircraft is being fueled or defueled, nor will any servicing be performed concurrently, e.g., alcohol, anti-detonation injection, oxygen, or hydraulic fluid.

l. Personnel in the area of aircraft being fueled shall adhere to the "No Smoking" rule and shall not carry matches or mechanical lighters near the operation. Personnel shall exercise care not to create any friction or static sparks when handling tools and metal equipment or by wearing metal shoe taps or nylon clothing that produce charges of static electricity.

m. Fuel trucks shall be kept as far from the aircraft as fuel hose length permits. Trucks should be parked in the best position to be driven or towed away from the aircraft vicinity in case of an emergency.

n. Fuel nozzles will always be manually controlled and never locked or chocked in an open position.

o. Caution will be exercised when topping off fuel tanks to prevent overflow.

4.17 Hangar Deck Operations and Responsibilities

4.17.1 Requests for Hangar Space

Visiting experimenters with research or special project aircraft shall request hangar or office/shop space via their respective PM or Airfield Operations. Special requests for using N-159 hangar will be considered; however, negotiations of availability, reimbursable cost, etc., are required before occupancy can take place. The Airfield Operations Manager and the Airfield Administrator are the final approving agents for such requests.
4.17.2 APU or GPU Operation Inside Hangar
Aircraft or internal combustion GPUs shall not be operated inside the hangar except under unusual or demanding conditions, and then only by the specific approval of the Aviation Safety Officer.

4.17.3 Hangar and Flight Line Upkeep and Cleanliness
Normal hangar deck cleanliness, i.e., dust, dirt, litter, and other ordinary accumulation of trash of this type, shall be cleaned and disposed of daily at the expense of the user in accordance with the approval to occupy airfield facilities. Accumulation of oil, grease, liquids, oily rags, mechanical parts or material, etc., shall be disposed of before the end of each workday or before close of business. Drip pans shall be used and kept clean, and excess oil and grease on the flight line shall be cleaned up and disposed of in the appropriate manner according to this document. Equipment, tools, parts, work stands, and benches shall not be left unattended on the flight line nor stowed in a disorderly, unsightly, or unsecured condition.

4.17.4 Disposal or Storage of Flammables
Highly flammable materials will not be stored inside the hangar or shop space, but shall be stored only in a designated storage area. This includes such items as oils, cleaning solvents, paint remover or thinner, water/methanol, aviation fuel, or any other highly flammable or dangerous material. For disposal of these items refer to this document.

4.17.5 Use of Grease Solvents or Liquid Sprays Inside Hangar
Under certain conditions limited use of Varsol or similar fluids for engine cleaning purposes may be used inside the hangar. As a general rule, however, this type of aircraft and engine maintenance is normally performed outside the hangar area in a pre-designated location, and only under exceptional cases will it be permitted within the hangar deck area. Spray painting of aircraft in hangars shall be generally limited to minor touchup jobs, as approved by the FOMs.

4.17.6 Storage, Handling, Preservation, and Disposal of Hazardous Materials
The Environmental Office manages any hazardous wastes and used oils generated at the Wallops Flight Facility. To discuss proper waste disposal procedures or arrange for a waste pickup, contact the hazardous waste line at extension 1718. For emergencies, call the Fire Department at extension 1333 (see Figure 4-4). For other environmental issues, call extension 1885, and an environmental representative will direct your call. Some guidelines for proper waste disposal are listed below.

Containers. Generating activities must ensure that wastes are properly contained. Containers must be sturdy and in good condition, suitable for the waste type, closed tightly, and stored upright. The original container should be used if possible. Three inches of headspace should be left in each container.

Labels. Each waste container must be labeled with the identity or name of the chemical, including contaminants, the generator, and the building number where the waste was generated. If the container holds a hazardous waste, the words "Hazardous Waste" should also be included on the label. A full hazardous waste container must be dated and picked up by the Environmental Office within 3 days. Used oil containers must be labeled with the word "used" rather than "waste."

Check the Aircraft Office Controlled Documents List at https://code830.wff.nasa.gov/ to verify that this is the correct version prior to use.
Inventory Form. A completed Hazardous Waste Disposal Inventory form (NASA WI-1550) must accompany each properly containerized and labeled container. These forms are available from the Environmental Office or at http://www.wff.nasa.gov/~code205/formspage.htm.

All containers awaiting disposal should be under the control of the generator, stored away from flame or other incompatible chemicals, and within secondary containment.

Figure 4.4 WFF Environmental Contingency Plan

4.18 Engine Operations on Flight Lines and Ramps

In addition to precautions and guidelines as may be already established in aircraft flight manuals or technical orders for individual aircraft types, the following precautions are reemphasized and shall be observed for all engine operations at the WFF Airfield:

a. Engine run-up operations are not permitted in proximity to buildings. However, with clearance from the Control Tower, engine run-up operations may be conducted on
remote taxiways or inactive runways. When selecting a run-up area, consideration must be given to the effects of exhaust fumes, exhaust blast, and noise on other aircraft, personnel, buildings, vehicles, and equipment.

b. A qualified person who is authorized to start and operate engines must occupy the pilot’s seat and maintain radio communications with the Control Tower/WFF CTAF during run-ups.

c. Radio communications between a ground crew observer and the person occupying the pilot’s seat is recommended during engine run-ups. If radio communication is not available, a ground observer shall be appropriately located to provide conventional hand signals to the person operating the engine(s).

d. The person who starts, operates, and tests aircraft engines will occupy the cockpit throughout the run-up period to engine shut down.

e. Persons, vehicles, and other aircraft will be prohibited from passing immediately behind or in front of a jet engine in operation.

f. Access doors and cowling subject to damage from jet blasts will be secured or removed before ground testing engines.

g. Maintenance will not be performed at the inlet ducts of operating jet engines.

h. Approved noise suppression devices to protect hearing shall be used by personnel working in areas where noise hazards exist such as engine run-ups.

4.19 Ejection Seats and Canopies

Canopies and ejection seats can be accidentally discharged by heat from fire or movement of the actuating mechanism. Caution will be exercised when performing maintenance on or near this equipment. To prevent accidental ejection of seats or canopies during ground support work, the following safety precautions will be observed:

a. Safety pins will be installed following flight after the aircraft is parked and engine shut down, or immediately after completing any maintenance that requires removal of the safety pins.

b. When any activity is performed near the ejection seat catapult or canopy controls, care must be taken to prevent accidental arming and firing.

c. Only certified personnel will remove and install a canopy ejection discharge mechanism.

d. Before a required disassembly, ensure that all safety pins are in place and that all electrical connectors have been disconnected from power sources.

e. In addition to the above safety items, appropriate technical orders or manuals on the specific type of ejection seat system will be consulted before making any adjustment, assembly, disassembly, or removal.

4.20 Chocks, Tie Downs, and Flight Line Security

Aircraft parked on ramps and flight lines shall be chocked when unattended. Mooring and tie down of aircraft will be performed in accordance with the instructions and guidelines set forth in the applicable flight manual or technical order pertaining to individual types of aircraft. During periods of high winds or when high winds are

Check the Aircraft Office Controlled Documents List at https://code830.wff.nasa.gov/ to verify that this is the correct version prior to use.
forecast, crew leaders will ensure that their respective aircraft are properly tied down. Crew leaders shall remain cognizant of the forecasted meteorological conditions to determine the need for any additional flight line precautions or added measures that might be required. In addition to appropriately securing aircraft during adverse meteorological conditions, crew leaders shall further ensure the secure status of all special equipment, material, work stands, etc. located on the flight line.

4.21 Facility Design and Modification

NASA oversees the location of all utilities and ensures they are located to prevent any accidental damage. Contractors are required to provide advance notification to Wallops Facilities Development organization, Code 228 15 days prior to mobilizing onsite in order to have all utilities in the field marked. Per U.S. Army Corps of Engineers Safety and Health Requirements Manual EM385-1-1, if a project requires work on any utilities then the contractor must notify Code 228 within 15 days so that a proper utility outage can be scheduled and approved with all required Lock-Out and Tag-Out Procedures.

The ATCT and ATC infrastructure are on an Uninterruptable Power Supply (UPS) as well as emergency backup generator power in the case of a power failure. 4.21 are located off station but interruptions in service and construction are published via a NOTAM. Any maintenance that entails shutdown of Air Traffic Control and Landing Systems (ATCALS) shall be coordinated with Airfield Operations and scheduled during periods of the best weather forecast and least air traffic activity.

In the event that airfield lighting has to be taken down, contractors are required to notify Code 228 15 days in advance of the work and request the localized section of the area requiring work to be taken out of service by base personnel. The required Lock-Out and Tag-Out procedures are applied by both base and contractor personnel prior to any work occurring. Once the work is completed, airfield lighting is then tested by base personnel to ensure proper operation before the area is released from the NOTAM and put back in active service.

Procedures for protection of Navaids and all airfield construction are as follows: All new construction, rehabilitation, or modification of airfield related facilities (i.e., runways, taxiways, ramps, hangars, project rooms or the Control Tower building) must be coordinated and reviewed with the NASA Airfield Administrator and Airfield Operations Manager. Additionally, the Aviation Safety Officer will review design specifications and plans. These reviews will ensure proper integration of long-range facility and operational schedules to minimize conflicts that would adversely affect the plans and productivity of the different organizations at WFF.

4.22 Airfield Snow Removal (See Appendix B)

Snow removal operations will be implemented by request through the Airfield Operations Manager. The requester must provide an active WFF funding account number before a removal operation may begin. The requester must designate the specific runways, taxiways, and/or ramps that are to be cleared. Appendix B depicts the most likely scenarios that will be used for opening the airfield after closure as a result of snow accumulation. Variations of these scenarios may be implemented in order to respond to special requests.

Areas that are not cleared for safe operation of aircraft will be identified on the ATIS and/or a NOTAM. Due to the detrimental effect to aircraft components, under no circumstances
shall sand, dirt, or non-FAA approved chemicals be used for enhancing traction or for accelerating the melting of ice or snow from any of the airfield operational surfaces.
Appendix A: Airfield Layout

Check the Aircraft Office Controlled Documents List at https://code830.wff.nasa.gov/ to verify that this is the correct version prior to use.
Check the Aircraft Office Controlled Documents List at https://code830.wff.nasa.gov/ to verify that this is the correct version prior to use.
Appendix B: Snow Removal Plans

Snow Removal Plan “A”
Runway 10-28 with Taxi Access to Hangar N-159

Diagram information is uncontrolled when viewed and/or printed in anything other than normal color.

Check the Aircraft Office Controlled Documents List at https://code830.wff.nasa.gov/ to verify that this is the correct version prior to use.
Snow Removal Plan B
Diagram information is uncontrolled when viewed and/or printed
in anything other than normal color

Check the Aircraft Office Controlled Documents List at
https://code830.wff.nasa.gov/ to verify that this is the correct version prior to use.
Check the Aircraft Office Controlled Documents List at https://code830.wff.nasa.gov/ to verify that this is the correct version prior to use.
Snow Removal Plan “D”

Runways 10-28, 04-22 and 17-35 with Taxi
Access to Hangar N-159

Diagram information is uncontrolled when viewed and/or printed in anything other than normal color.

Check the Aircraft Office Controlled Documents List at https://code830.wff.nasa.gov/ to verify that this is the correct version prior to use.
Appendix C: Airfield Signs, Marking and Lighting

Runway Light Fig C-1

Taxiway Light Fig C-2

Runway Lighting Configuration Fig C-3

Check the Aircraft Office Controlled Documents List at https://code830.wff.nasa.gov/ to verify that this is the correct version prior to use.
Check the Aircraft Office Controlled Documents List at https://code830.wff.nasa.gov/ to verify that this is the correct version prior to use.
Hold Sign (at runway) Figure C-9

Hold Sign with location Figure C-10

Taxiway Directional Sign Figure C-11
## Appendix D: Airfield Status Record

### Wallops Airfield Status Record

**HOW TO USE THIS FORM:**

CTO: Ensure the date of record is included in the file name when saving the file. This form is used each day when the Wallops Airport Control Tower moves from manned to unmanned or back to a manned status. The Tower is closed and passdown is transferred to WFF Dispatch. The Control Tower Operator completes this form and submits it to Dispatch. Dispatch completes their information on this form when the tower transfers back to a manned status. An automated e-mail is distributed with each transfer.

<table>
<thead>
<tr>
<th>Control Tower to CFR Passdown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date:</td>
</tr>
<tr>
<td>Time (Local):</td>
</tr>
<tr>
<td>Airspace Restriction:</td>
</tr>
<tr>
<td>Restriction Status:</td>
</tr>
</tbody>
</table>

### Scheduled Flight

<table>
<thead>
<tr>
<th>Scheduled Flight:</th>
<th>Date:</th>
<th>Time:</th>
<th>CTO/CTAF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### NOTAMS

<table>
<thead>
<tr>
<th>NOTAM #</th>
<th>NOTAM Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Operations and Airfield Activity

<table>
<thead>
<tr>
<th>NASA Operation or Airfield Activity</th>
<th>Date</th>
<th>Time</th>
<th>Airfield Location</th>
<th>PM/RSM/POC</th>
<th>Extension</th>
<th>Cell</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Fuel Requests

**Fuel Requested:**

**Stand-By Fuelers:**

**Amplifying Information:**

Enter amplifying information as appropriate:

### CTO Sign Off and Passdown

<table>
<thead>
<tr>
<th>Name of Control Tower Operator Completing Record and Passdown</th>
<th>PCL Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Submit Form/E-mail

Wallops Airfield Status Record 830-AOF-0501 REV_  March 2017

Check the Aircraft Office Controlled Documents List at [https://code830.wff.nasa.gov/](https://code830.wff.nasa.gov/) to verify that this is the correct version prior to use.
Check the Aircraft Office Controlled Documents List at [https://code830.wff.nasa.gov/](https://code830.wff.nasa.gov/) to verify that this is the correct version prior to use.

---

**Wallops Airfield Status Record**

**Dispatch to Control Tower Passdown**

<table>
<thead>
<tr>
<th>Date:</th>
<th>Time:</th>
<th>Airspace Restriction</th>
<th>Restriction Status:</th>
</tr>
</thead>
</table>

**Aircraft in Airspace (At time of opening)**

- If yes, please list:

**Over Night Aircraft Arrivals and Location**

- If yes, please list aircraft and location:

**Vehicles on Airfield**

- If yes, please list:

**Airfield Lighting Issues**

- If yes, please list:

**Other Pertinent Airfield Information/PPRs**

- If yes, please list:

**Additional NOTAMS**

<table>
<thead>
<tr>
<th>NOTAM #</th>
<th>NOTAM Conditions</th>
<th>Issued By</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Dispatch Sign Off and Passdown to CTO**

Name of Dispatch personnel Completing Record and Passdown

Submit Completed Form by Email

---

Wallops Airfield Status Record 830-AOF-0001 REV_ March 2017

Page 2 of 2
## Appendix E: WFF Airfield Driver Permit Request

### Wallops Airfield Driver Permit Request

**HOW TO USE THIS FORM:**

This form is used to request a Wallops Airfield Driver Permit. The requestor completes the requested information and identifies the level of access request. Upon submission, the request will be e-mailed to the Aircraft Office for approval. Issuance of a Wallops Airfield Driver Permit requires approval of this request by the Wallops Aircraft Office Airfield Administrator, completion of the Wallops Airfield Driver Training Program and a minimum grade of 80 on the associated test. Wallops Airfield Driver Permit Cards are issued by Wallops Airfield Operations. Driver permits, access levels and privileges may be rescinded at the discretion of the Wallops Aircraft Office Airfield Administrator or flight designees if violations occur or if used for access is not justified.

<table>
<thead>
<tr>
<th>Requestor Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request Date:</td>
</tr>
<tr>
<td>Name:</td>
</tr>
<tr>
<td>Organization:</td>
</tr>
<tr>
<td>Title:</td>
</tr>
<tr>
<td>Telephone:</td>
</tr>
</tbody>
</table>

### Access Level Requested

<table>
<thead>
<tr>
<th>Airfield View</th>
<th>Level Requested</th>
<th>Access Level Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Level 1</td>
<td><strong>Ramp Access:</strong> The permit holder is authorized to access the D1, B129 and N159 ramp areas during the hours of 0700-1700 when the Wallops Air Traffic Control Tower is in operation. Access includes ramp/aprons, wash rack, aircraft parking areas and hangar access points. Permission from the Air Traffic Control Tower is required prior to accessing these areas. Annual refresher training is required to maintain a valid permit.</td>
</tr>
<tr>
<td>Zoom View</td>
<td>Level 2</td>
<td><strong>Restricted Duty Hour Access:</strong> The permit holder is authorized to access runways and taxiways in addition to the Level 1 areas during the hours of 0700-1700 when the Wallops Air Traffic Control Tower is in operation. Permission from the Air Traffic Control Tower is required prior to accessing these areas. Annual refresher training is required to maintain a valid permit.</td>
</tr>
<tr>
<td>Zoom View</td>
<td>Level 3</td>
<td><strong>Unrestricted Access:</strong> The permit holder is authorized to access the Level 1 and Level 2 areas during all hours. The permit holder is required to complete training for Common Traffic Advisory Frequency (CTAF) self-announce procedures broadcast on Very High Frequency (VHF) aircraft radios. The permit holder is required to utilize CTAF self-announce procedures when accessing the airfield. Annual refresher training is required to maintain a valid permit.</td>
</tr>
</tbody>
</table>

### Escort Request

<table>
<thead>
<tr>
<th>Estimated Start Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Stop Date:</td>
</tr>
</tbody>
</table>

Justification for Access Level requested:

Submit Form

---

Check the Aircraft Office Controlled Documents List at [https://code830.wff.nasa.gov/](https://code830.wff.nasa.gov/) to verify that this is the correct version prior to use.
Appendix F: Prior Permission Request (PPR) Form

Check the Aircraft Office Controlled Documents List at https://code830.wff.nasa.gov/ to verify that this is the correct version prior to use.
Appendix G: NOTAM Request Form

This form may be used to request a Notice to Airmen (NOTAM) that relates to the WFF Airfield and/or the WFF Range. A NOTAM is issued by the WFF Airfield Operations Manager and may be delegated to Airfield Operations personnel. NOTAM Requests may be submitted via this form or by verbally contacting Airfield Operations personnel.

CONTACT/NOTAM REQUEST DETAILS:

<table>
<thead>
<tr>
<th>Current Date:</th>
<th>Requestor's Name</th>
<th>Requestor's Phone</th>
<th>Requestor's Email</th>
<th>Requestor's Org</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar 28, 2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NOTAM Start Date</th>
<th>NOTAM Stop Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Proposed NOTAM Text:

Submit Request

Check the Aircraft Office Controlled Documents List at [https://code830.wff.nasa.gov/](https://code830.wff.nasa.gov/) to verify that this is the correct version prior to use.
Appendix H: WFF Airfield Driver Permit Information

H.1 WFF Airfield Driver Training

Each person who accesses the airfield’s controlled areas must have a valid state driver’s license and successfully complete the mandatory WFF Airfield Driver Training program. Requests are documented by the submission of a WFF Airfield Driver Permit Request form listed in Appendix E and forwarded to the NASA Airfield Administrator for approval. Disposition of requests are documented on the form and forwarded to the Airfield Operations Manager.

WFF Airfield Driver Permit holders are required to schedule and complete an annual driver training refresher course prior to the expiration of their permit. Training records are retained by the Airfield Operations Manager or their designee.

H.2 Permission for WFF Airfield Access

All personnel accessing the airfield must possess a WFF Airfield Driver Permit and receive prior permission for their access by coordinating their activities with the Airfield Operations Manager’s office. Requests for escorted airfield access required temporarily in support of a mission/project or a visitor need shall be documented on the WFF Airfield Driver Permit Request form listed in Appendix E and should be submitted in advance of the requested dates.

The ATCT controls all operators in the AOA in accordance with this document

H.2.1 Instructions for Airfield Access

The primary entry points to the airfield are the gate on the north side of Building N-159, the Fire Department (Crash, Fire, & Rescue) and at the base of the tower.

a. First-time users should be accompanied by an experienced user during their first time in the AOA.

b. To access the AOA, sign out a Land-based Mobile Radio (LMR) from Building B129 (Dispatch) and a roof top mounted rotating beacon. Provide a cell number as a backup. The LMR Radio (handheld) is the primary method of communication with the Tower. Users will remain in possession of a LMR radio at all times while in the AOA. Call the ATCT at (757-824-1688) on a cell phone if the radio is not working

c. Contact Airfield Operations at 757-824-2049/1240 about other operations that may impact your activity.

d. Assign a lead vehicle in your group to escort all vehicles in your party. Do not separate. The lead vehicle must maintain two-way radio communications with ATC at all times while within the AOA.

e. Secure all tools, cargo, and loose items on all vehicles that will be entering the AOA.

f. Check tires for Foreign Objects and Debris (FOD), rocks, and mud prior to driving on any Taxiway, Runway or Ramp. Signage at the access points will serve as a reminder.

Check the Aircraft Office Controlled Documents List at https://code830.wff.nasa.gov/ to verify that this is the correct version prior to use.
g. Use roof top mounted rotating beacons when operating a vehicle in the AOA.

h. “Hold short” 50 feet from the Taxiways or at the Runway hold short lines until permitted from ATC Tower to proceed.

**NOTE:** DO NOT ENTER the AOA without ATCT permission

i. Always repeat instructions back to ATCT before proceeding and report to ATCT when clear of Taxiways and Runways. Proper communication protocol and phraseology shall be used as taught in the Airfield Driver Training program.

j. Always look for aircraft, high and low, when crossing Taxiways and Runways.

**NOTE:** If the runway lights start flashing all personnel must clear the runway immediately.

k. Always approach aircraft with the driver’s side towards the aircraft.:
   1. Without a spotter present, clearance (approach) should be 25 feet minimum
   2. With a spotter present, the clearance (approach) should be 10 feet minimum,
   3. If an Aircraft is being serviced (refueling, oxygen etc.) clearance (approach) should be, 200 feet minimum.
   4. If an aircraft has flashing beacons or the engines are running the clearance (approach) should be 200 feet minimum.

**NOTE:** Do not direct headlights at operating aircraft or the ATCT.

l. If a CFR vehicle or any other emergency vehicle approaches with lights on (flashing) do the following:
   1. If on the Taxiway; pull to the right and stop.
   2. If on the Runway or Ramp, STOP. Emergency vehicles will maneuver around you.

m. Notify the ATCT and/or Airfield Operations immediately of any unusual conditions, accidents, flat tires, missing tools or equipment, etc.
# Appendix I: Waivers

<table>
<thead>
<tr>
<th>Waiver Title</th>
<th>Date</th>
<th>Content</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pavement Control Index Waiver</td>
<td>March 17, 2017</td>
<td>Waiver to conduct the Pavement Control Index in 2020 due to construction</td>
<td>Aircraft Officer Server</td>
</tr>
<tr>
<td>Fencing of Airfield Perimeter Waiver</td>
<td>March 11, 2016</td>
<td>Waiver of fencing around the Airfield</td>
<td>SBU information - Aircraft Office Server</td>
</tr>
</tbody>
</table>
Appendix J: Mishap Response

Immediate Aircraft Mishap Response
WFF Air Traffic Control Tower

If an aircraft crashes on or near the WFF Airport, perform the following actions:

1) Ensure Fire/Crash Rescue has been informed and is enroute to the scene
2) Ensure security has been informed and is enroute to the scene
3) Call the Airfield Administrator, the Airfield Manager or the ASO
   • AA: Richard Rogers: 757-894-1386
   • AM: Ed Sudendorf: 757-894-3753
   • ASO: Mark Russell: 757-694-7671
4) Start a written log of actions/events
5) Start collecting communication recordings, radar information, relevant tower logs, and any other potential source of information related to the mishap
6) Do not give information about the incident over the phone except as required by the normal execution of your ATC duties. If you are asked for information from individuals that you are not completely sure have a legitimate need to know, provide only the following statement:

   Wallops Flight Facility Tower is unable to provide any statement or information about any incident at this time. Should you require information, please contact the Facility’s Supervisory Public Affairs Specialist, Mr. Jeremy Eggers at 757-824-2958. Thank you.

If they continue to try to ask questions, hang up on them
7) Be prepared to provide a timeline, communication log and other information related to your duties to the incident response team, the ASO or the mishap investigation team
Immediate Aircraft Mishap Response
Dispatcher

If an aircraft crashes on or near the WFF Airport, perform the following actions:

1) Ensure Fire/Crash Rescue has been informed and is enroute to the scene
2) Ensure security has been informed and is enroute to the scene
3) Call the Airfield Administrator, the Airfield Manager or the ASO
   - AA: Richard Rogers: 757-894-1386
   - AM: Ed Sudendorf: 757-894-3753
   - ASO: Mark Russell: 757-694-7671
4) Start a written log of actions/events

GET HELP
Don’t do this by yourself!

5) Do not give information about the incident over the phone except as required by the normal execution of your dispatcher duties. If you are asked for information from individuals that you are not completely sure have a legitimate need to know, provide only the following statement:

   Wallops Flight Facility Dispatch is unable to provide any statement or information about any incident at this time. Should you require information, please contact the Facility’s Supervisory Public Affairs Specialist, Mr. Jeremy Eggers at 757-824-2958. Thank you.

If they continue to try to ask questions, hang up on them

6) Be prepared to provide a timeline, communication log and other information related to your duties to the incident response team, the ASO or the mishap investigation team
Immediate Aircraft Mishap Response
Airfield Operations Team

If an aircraft crashes on or near the WFF Airport, perform the following actions:

1) Ensure Fire/Crash Rescue has been informed and is enroute to the scene
2) Call the Airfield Administrator, the Airfield Manager or the ASO
   - AA: Richard Rogers: 757-894-1386
   - AM: Ed Sudendorf: 757-894-3753
   - ASO: Mark Russell: 757-694-7671
3) Start a written log of actions/events

   GET HELP
   Don’t do this by yourself!

4) Post a dedicated person to answer all incoming calls to x1688. Unless the caller is part of your WFF leadership team, do not answer any questions. Provide only the following statement:
   
   **Wallops Flight Facility Base Operations is unable to provide any statement or information about any incident at this time. Should you require information, please contact the Facility’s Supervisory Public Affairs Specialist, Mr. Jeremy Eggers at 757-824-2958. Thank you.**

   If they continue to try to ask questions, hang up on them

5) Call the WFF Tower Chief and tell them to secure any potential mishap related materials (tower logs, voice communications, weather, radar info, etc.)

6) If WFF fuel was consumed by the mishap aircraft, impound the fuel log and immediately stop all fueling operations at the facility. Inform at least one of the individuals in item 2 above of this action

7) Upon the arrival of one of the individuals in item 2 above, prepare to assist in further airfield ops related efforts associated with the mishap