Chapter 02: FBO Services

14. Aircraft Washing, Waxing, and Detailing

Provide aircraft exterior cleaning, waxing, and detailing services to maintain aircraft appearance and protect airframe surfaces while ensuring safety and regulatory compliance.

Purpose

This process establishes procedures for professional aircraft washing, waxing, and detailing services to enhance aircraft appearance, protect airframe surfaces from environmental damage, and maintain client satisfaction. Services accommodate general aviation aircraft including Cessna 172, Piper Cherokee, King Air, Pilatus, and TBM series aircraft operating from our 3,500-foot runway facility.

Roles and Responsibilities

Line Service Technician:

- Execute aircraft washing, waxing, and detailing procedures
- Maintain equipment and chemical inventory for detailing services
- Follow safety protocols and environmental regulations during all operations
- Document service completion and quality standards
- Coordinate aircraft positioning and access for detailing services
- Monitor safety compliance during detailing operations
- Set up and clean up equipment and work areas
- Verify aircraft security and access control during services
- Document service coordination and client communications

Operations Leader:

- Oversee detailing service quality and client satisfaction
- Authorize special detailing requests and premium services
- Monitor environmental compliance and waste disposal procedures
- Coordinate scheduling and resource allocation for detailing services
- Review billing and approve service adjustments for client satisfaction

Process Steps

Pre-Service Assessment Phase

- **Review client service request** - Confirm aircraft type, service level, and special requirements
- **Inspect aircraft condition** - Assess current surface condition, damage, and special care needs
- **Verify aircraft accessibility** - Confirm aircraft position, security access, and equipment clearance
- **Check weather conditions** - Ensure suitable environmental conditions for detailing operations
- **Prepare work area** - Set up safety barriers, equipment, and environmental protection measures

Aircraft Preparation Phase

- **Secure aircraft properly** - Verify parking brake, chocks, and safety measures are in place
- **Protect sensitive areas** - Cover pitot tubes, static ports, and other critical components
- **Remove loose debris** - Clear aircraft surfaces of dirt, leaves, and other foreign objects
- **Document pre-service condition** - Photograph and note any existing damage or special areas
- **Coordinate with maintenance team** - Verify no maintenance activities conflict with detailing
- **Degrease aircraft belly** - Clean belly surfaces before main wash to prevent contamination of brushes and tools

Washing and Cleaning Phase

- **Apply pre-wash treatment** - Use appropriate cleaning solutions for aircraft surface type
- **Execute primary wash** - Clean aircraft surfaces using proper techniques and equipment
- **Address specific areas** - Clean landing gear, wheel wells, and other detailed components
- **Rinse thoroughly** - Remove all cleaning solutions and debris from aircraft surfaces
- **Inspect cleaning results** - Verify all surfaces are properly cleaned and free of contaminants
- **Clean windows and canopies separately** - Use dedicated tools and cleaners for transparent surfaces only

Waxing and Protection Phase

- **Select appropriate products** - Choose wax and protection products based on aircraft surface type
- **Apply wax systematically** - Cover all painted surfaces with appropriate protection products
- **Polish surfaces** - Achieve desired finish quality using proper techniques and equipment
- **Protect metal surfaces** - Apply appropriate treatments to aluminum and other metal components
- **Verify coverage** - Ensure all surfaces receive proper protection and finish quality

Final Detailing Phase

- **Clean windows and canopies** - Polish all transparent surfaces to optical clarity standards using dedicated tools and cleaners
- **Detail landing gear** - Clean and protect landing gear components and wheel wells
- **Polish propellers** - Clean and polish propeller blades following manufacturer guidelines
- **Final inspection** - Conduct quality inspection of all detailing work
- **Remove protective covers** - Safely remove all protective materials and verify component function

Post-Service Completion Phase

- **Document service completion** - Record all services performed and products used
- **Update client records** - Complete service documentation and billing information
- **Clean work area** - Remove all equipment, materials, and environmental protection measures
- **Conduct quality review** - Verify aircraft appearance meets established standards
- **Coordinate client handoff** - Present completed aircraft to client and obtain satisfaction confirmation

Process Mapping

Flowchart showing sequential steps from client request through service completion with decision points for weather conditions, service level selection, and quality inspection requirements.

Tools and Resources

- Aircraft washing equipment and pressure washers
- Professional detailing chemicals and wax products
- Safety equipment and personal protective gear
- Environmental protection materials and containment systems
- Quality inspection tools and documentation systems
- Client service forms and billing documentation
- Weather monitoring equipment and environmental compliance references

Success Metrics

- **Completion Time:** Standard wash completed within 6 hours, full detailing within 12 hours.

- **Quality Standard:** 100% client satisfaction with aircraft appearance and service quality.
- **Safety Standard:** Zero safety incidents and proper environmental compliance throughout service.
- **Client Satisfaction:** 95% or higher client satisfaction rating for detailing services.

Common Issues and Solutions

- **Issue:** Weather conditions prevent safe or effective detailing operations
- **Solution:** Reschedule service for suitable weather conditions and communicate revised timing to client
- **Issue:** Aircraft surface damage discovered during detailing process
- **Solution:** Document damage immediately, notify client, and coordinate with maintenance team for assessment
- **Issue:** Environmental regulations require special handling of cleaning chemicals
- **Solution:** Implement proper containment and disposal procedures following EPA and local regulations

Safety Considerations

- ⚠️ **WARNING**: Never use high-pressure water near aircraft engines, electrical components, or sensitive avionics
- ⚡ **CAUTION**: Verify aircraft security and access controls before beginning any detailing operations
- ⚡ **CAUTION**: Never use any physical cleaner that has contacted the ground or aircraft surfaces on clear acrylic components
- ℹ️ **NOTE**: Use only aviation-approved cleaning products and follow manufacturer guidelines for all surfaces
- ℹ️ **NOTE**: Degrease aircraft belly before main wash to prevent contamination of brushes and tools
- ✅ **BEST PRACTICE**: Conduct pre-service briefing on aircraft-specific requirements and safety protocols
- ✅ **BEST PRACTICE**: Use dedicated tools and cleaners for windows and canopies only

Client Billing and Pricing

Service Level Pricing Structure

Standard Wash Service:

- Basic aircraft exterior cleaning and rinse
- Standard pricing based on aircraft size category
- Completion time: 3-6 hours

Premium Wash and Wax Service:

- Complete exterior cleaning with wax application
- Surface protection and polish treatment
- Standard pricing plus premium service fee
- Completion time: 6-9 hours

Full Detailing Service:

- Complete exterior and interior detailing
- Advanced surface protection and polish
- Premium pricing for complete service package
- Completion time: 9-12 hours

Aircraft Size Categories and Pricing

Small Aircraft (Cessna 172, Piper Cherokee):

- Standard wash: $75-125
- Premium wash and wax: $150-200
- Full detailing: $250-350

Medium Aircraft (King Air, Pilatus):

- Standard wash: $150-250
- Premium wash and wax: $300-400
- Full detailing: $500-700

Large Aircraft (TBM, Citation):

- Standard wash: $250-400
- Premium wash and wax: $500-700
- Full detailing: $800-1200

Billing Procedures

Pre-Service Billing:

- Obtain client authorization and service level confirmation
- Document aircraft type, size, and special requirements
- Provide written estimate with service breakdown
- Collect client signature on service authorization form

Service Documentation:

- Record actual services performed and products used
- Document any additional services or special requirements
- Note completion time and quality standards achieved
- Photograph completed work for client records

Invoice Generation:

- Generate detailed invoice with service breakdown
- Include materials, labor, and any additional charges
- Apply appropriate taxes and fees
- Provide payment terms and methods accepted

Special Billing Considerations

Rush Service:

- Additional 25% fee for same-day completion
- Requires operations leader approval
- Coordinate with existing service schedule

Special Materials:

- Additional charges for premium wax or protection products
- Client approval required for premium material upgrades
- Document material costs separately on invoice

Damage Assessment:

- Document any pre-existing damage before service
- Photograph and note condition for client records
- Coordinate with maintenance team for damage evaluation if needed

Client Account Management:

- Process payment through established client accounts
- Update client service history and preferences
- Coordinate with accounting team for payment processing
- Follow up on outstanding invoices per company policy

Regulatory References

- 14 CFR Part 91 - General Operating and Flight Rules

- EPA Regulations for Aircraft Cleaning and Waste Disposal
- OSHA Standard 29 CFR 1910.1200 - Hazard Communication
- Aircraft Manufacturer Maintenance Manuals and Surface Care Guidelines
- Company Environmental Compliance and Safety Management System (SMS) procedures