EXTERIOR - CLEANING/WASHING/RINSE - SERVICING

1. General

A. This section gives the exterior cleaning (wash/rinse) procedures necessary to give maintenance personnel instructions to clean (wet wash) the airplane exterior as a function of corrosion prevention. Alternative procedures are also included in this section to help maintenance personnel when a wet wash is not possible.

B. Washing removes contamination from the exterior airplane surfaces to prevent corrosion from runway deicing fluids, salts, oily fluids, foreign material, and surface dirt.

C. Exterior washing is a necessary part of a Corrosion Prevention and Control Program (CPCP). Refer to the applicable Maintenance Manual, Chapter 51, Corrosion Prevention and Control Program - Description and Operation.

2. Exterior Cleaning (Wash/Rinse) Considerations

A. Read and know all of the Warnings, Cautions, Notes, instructions, and other data given in this section and in the section that follows. Refer to Exterior Cleaning (Wash/Rinse) in this section.

B. Tools, Equipment, and Consumables

CAUTION: Read and obey all of the manufacturer's instructions, warnings, and cautions for the cleaning/solvent compounds that you use.

NOTE: If general purpose (mild detergent) cleaning compounds given in Table 301 are not available, email maintenanceengineering@txtav.com to find if you can use alternatives.

Table 301. General Purpose (Mild Detergent) Cleaning Compounds

Product Name	Number	Manufacturer/Web Address	Use
Aerowash 3000		Rhoba-Chemie https://rhoba-chemie.com/	To wash the exterior of the airplane (general purpose cleaning).
Aircraft Cleaner II		Zep Inc. https://zep.com/	To wash the exterior of the airplane (general purpose cleaning).
Eco 2000	ZI-400 or ZI-400HD	Solidus Industries https://solidus.industries/	To wash the exterior of the airplane (general purpose cleaning).
ZI-400 or ZI-400HD	ZI-400 or ZI-400HD	Solidus Industries https://solidus.industries/	To wash the exterior of the airplane (general purpose cleaning).
Super Bee 210 Cleaner **(NOTE 2)**	Super Bee 210	McGean https://www.mcgean.com/	To wash the exterior of the airplane (general purpose cleaning).
Cee-Bee A-882 Cleaner **(NOTE 2)**	Cee-Bee A-882 Cleaner	McGean https://www.mcgean.com/	To wash the exterior of the airplane (general purpose cleaning).
Cee-Bee A-883 Cleaner **(NOTE 2)**	Cee-Bee A-883 Cleaner	McGean https://www.mcgean.com/	A thickened general purpose cleaner for use on vertical structures such as gear wells, flap wells and vertical stabilizers.
Eraser Extreme Clean **(NOTE 2)**		Knipps https://knipps.com/	To wash the exterior of the airplane (general purpose cleaning) **(NOTE: 2)**.

Mild Detergent **(NOTE 1)**	MIL-C-43616MIL-PRF-85570	Commercially Available	To wash the exterior of the airplane (general purpose cleaning).
Mirachem 500 Cleaner/Degreaser	Mirachem 500	Mirachem https://mirachem.com/	To wash the exterior of the airplane (general purpose cleaning).
Release Ultra	95111 (Diluted) 95110 (Concentrate: Dulute 1:20	Cleaning Systems, Inc. https://www.cleaningsystemsinc.com/	To wash the exterior of the airplane (general purpose cleaning).
Surtech 121		SurTec https://www.surtec.com/en/	To wash the exterior of the airplane (general purpose cleaning).
Synclair A/C		SOCO/MORE https://www.socomore.com/	To wash the exterior of the airplane (general purpose cleaning).

NOTE 1:

You can use equivalent alternatives. Cleaning compound performance characteristics must only meet corrosion, total immersion corrosion, effects on plastics, and the pH requirements given in MIL-PRF- 43616 or MIL-C-85570.

NOTE 2:

Cleaners can leave an alkaline residue on the airplane that should be rinsed off with clean water after use.

WARNING: Be careful when you use degreasers. Degreasers are toxic to your skin, eyes, and respiratory tract. Make sure that your work area has a ventilation system that supplies sufficient fresh air.

CAUTION: Read and obey all of the manufacturer's instructions, warnings, and cautions for the cleaning/solvent compounds that you use.

CAUTION: Apply corrosion inhibiting compounds (CIC's) again if they are removed or damaged. Use of heavy degreasers can have an effect on CIC's durability. Take precautions to preserve all CIC's that already were applied. Refer to the applicable Maintenance Manual, Chapter 51, Corrosion Inhibitor - Maintenance Practices.

CAUTION: Use Extreme Simple Green Aircraft and Precision Cleaner only. Other Simple Green products have been found to cause corrosion to the airplane structure.

NOTE: If heavy duty cleaners (degreasers) given in Table 302 are not available, contact Maintenance Engineering to find if you can use alternatives. Refer to Introduction - How to Get Customer Assistance.

Table 302. Heavy Duty Cleaners (Degreasers)

Name	Number	Manufacturer/Web Address	Use
Acrysol		Kent Automotive https://www.kent-automotive.com/	To remove grease and other heavy contamination from the exterior of the airplane.
Carbon X		Arrow-Magnolia International https://www.arrowmagnolia.com/	To remove grease and other heavy contamination from the exterior of the airplane.
Extreme Simple Green Aircraft and Precision Cleaner		Simple Green https://simplegreen.com/	To remove grease and other heavy contamination from the exterior of the airplane.
Dry Clean Solvent **NOTE 1**	MIL-PRF-680	Commercially Available	To remove grease and other heavy contamination from the exterior of the airplane.
Naptha	TT-N95, Type II	Commercially Available	To remove grease and other heavy contamination from the exterior of the airplane.

Zep Power Degreaser **NOTE 2**	MIL-PRF-85570	Commercially Available	To remove grease and other heavy contamination from the exterior of the airplane.

NOTE 1:

There are other commercially available cleaners that meet the requirements of MIL-PRF-680 applicable for removing contamination.

NOTE 2:

There are other commercially available cleaners that meet the requirements of MIL-PRF-85570 applicable for removing contamination.

CAUTION: Read and obey all of the manufacturer's instructions, warnings, and cautions for the cleaning/solvent compounds that you use.

NOTE: If dry wash products given in Table 303 are not available, email maintenanceengineering@txtav.com to find if you can use alternatives.

Table 303. Dry Wash Products

Name	Number	Manufacturer/Web Address	Use
Rhoba-Air 3		Rhoba-Chemie https://rhoba-chemie.com/	To dry wash the exterior of the airplane.
Whitmore Aviation Dry Wash		Whitmore, - CSW Industrials Company https://www.whitmores.com/products/aviation-dry-wash	To dry wash the exterior of the airplane.
No-H20 Wash & Wax		No-H20 Ltd https://www.noh2o.com/	To dry wash the exterior of the airplane.
Skywash SKY-SE1 Drywash	11304 and/or 11305	Skywash International https://skywashintl.com/products/	To dry wash the exterior of the airplane.
Wash Wax All		Aero Cosmeticshttps://washwax.com/	To dry wash the exterior of the airplane. **NOTE: Not for use on windows or plastics.**

CAUTION: Read and obey all of the manufacturer's instructions, warnings, and cautions for the polishing compounds that you use.

NOTE: If polishes given in Table 304 are not available, email maintenanceengineering@txtav.com to find if you can use alternatives.

Table 304. Polishes and Cleaning Supplies

Name	Number	Manufacturer/Web Address	Use
Access Equipment (Ladder, Servicing Platform, Work Stand, other)		Commercially Available	To get access to all contamination exposure zones.
Cheesecloth		Commercially Available	To clean, wash, and polish the exterior of the airplane.
Clean Cotton Cloths		Commercially Available	To clean, wash, and polish the exterior of the airplane.
Clean Shop Towels		Commercially Available	To clean, wash, and polish the exterior of the airplane.
Clean Water		Commercially Available	To wet wash the exterior of the airplane.

DuPont Car Polish		Commercially Available	To polish the exterior of the airplane.
Hydraulic Fluid **NOTE 1**		Commercially Available	To remove sand, dirt, salts, and other foreign object debris (FOD) from the landing gear piston external surface.
Low-Pressure Garden Hose		Commercially Available	To wet wash the exterior of the airplane.
Non-Metal Cleaning Pad		Commercially Available	To wet wash the exterior of the airplane.
Nonwoven Fabric Cleaning Cloth		Commercially Available	To remove sand, dirt, salts, and other FOD from the landing gear piston external surface.
Permagard Aviation Reactive Polymer	New Paint Kit 1 - AV308 Reactive Polymer Aviation	Permagard LLC, 7030 SW 47th Street Miami, FL 33155 Phone: 305-660-5070 Web: www.permagard.com	To improve appearance and protection of all aircraft external painted surfaces.
	Used Paint Kit 2 - AV303 Treatment for Very Damaged Surfaces		
	Accessories Kit 3 - Reusable Terry Cotton and Microfiber Bonnets		
	Maintenance Kit 4 - AV312 Multipurpose Cleaner Concentrate, Empty Sprayer and AV305 Cleaner for Treated Surfaces		
Protective Covers (Nonstick Tape, Barrier Material, Cloth, Plastic Cover, Waterproof Nonadhesive Paper, other)		Commercially Available	To give protection to the airplane during washing and rinsing.
Soft Bristle Brush		Commercially Available	To wet wash the exterior of the airplane.
Spray Bottle or Garden-Type Sprayer		Commercially Available	To use for the alternative wash the exterior of the airplane.
Telescopic Cleaning Tool		Commercially Available	To wet wash the exterior of the airplane.
Tripoli	T-41	Commercially Available	To polish the exterior of the airplane.

NOTE 1:

Make sure to use the correct hydraulic fluid for your airplane.

C. Types of Washing/Rinsing

NOTE: There are four types of washing/rinsing procedures. The procedures that you use depend on the amount of contamination, area to be washed, and local environmental laws.

(1) Wet Wash

(a) The full wet wash (water-based wash) cleans the exterior areas of the airplane with a high volume of clean water, cleaning solution, and soft bristle brush. This includes washing the landing gear, wheel wells, and trailing edge coves (wing, horizontal, and vertical). Refer to Table 301, Table 302, and Table 305.

(2) Alternative Wash

(a) The alternative wash uses a spray bottle to apply an approved cleaner, soft bristle brush, a low volume rinse of clean water from another spray bottle, and clean shop towels to dry the exterior of the airplane. Refer to Table 301, Table 302, and Table 305.

(3) Dry Wash

(a) The dry wash is an apply-and-remove (wipe on/wipe off) procedure that you can use during other maintenance or as part of the alternative wash procedure. Dry washing is only approved for smooth surfaces. Refer to Table 303.

(4) Runway Deicing (RDI) Clean Water Rinsing

(a) If the airplane has deicing fluid contamination, Cessna recommends that you rinse (flush) the deicing fluid from the airplane within three days of contamination. Deicing fluids can cause corrosion, which can quickly damage the airplane structure. Clean water rinsing will flush the RDI contamination away from the high exposure areas - Airplane Zone 1 on the airplane structure. Clean water rinsing is not an approved alternative to wet washing or alternative washing. Refer to Table 305.

(5) Deicing/Anti-Icing Fluid Residue Wash

(a) If the airplane has deicing/anti-icing fluid residue, Textron Aviation recommends that you wash the deicing/anti-icing fluid residue from the airplane in 3 days or less of contamination. Deicing/Anti-Icing Fluid Residue Wash is not an approved alternative to wet washing or alternative washing.

D. Corrosion Prevention Control Program (CPCP)

(1) Cessna recommends that you use the Baseline Exterior Wash Schedule for your CPCP wash schedule. Refer to the applicable Maintenance Manual, Chapter 12.

NOTE: The Baseline Exterior Wash Schedule is progressive and designed so that each Airplane Exposure Zone will be cleaned at the same time. When you do a 90-day Low Exposure - Airplane Zone 3 wash, you will also do the 15-day High Exposure - Airplane Zone 1 wash and the 45-day Medium Exposure - Airplane Zone 2 wash.

NOTE: The airplane exterior must be washed on a frequency which is applicable to the environment in which it operates. The frequency of the washes must be made and adjusted to minimize the development of corrosion on the airplane.

NOTE: A full wash will use one or more of the washing procedures to remove all contamination from the exposure areas.

NOTE: The operator must make the decision as to which washing procedures, tools, equipment, and materials to use for each occurrence.

NOTE: Some areas of the airplane will probably have more contamination than other areas. The higher the level of exposure to contamination in these areas, the higher the possibility that corrosion will occur.

Table 305. Baseline Exterior Wash Schedule

Task Title	Description	Airplane Zone
15 Day High Exposure Areas Airplane Zone 1 Wash	High Exposure Areas: • Landing Gear Wheel Wells • Landing Gear • Wing Trailing Edge Structure (Aft Side of the Rear Spar) in the inboard section of the Flap Bays directly behind the MLG	Airplane Zone 1 **NOTE:** **Refer to the applicable Maintenance Manual, Chapter 12, Exterior Cleaning (Wash/Rinse).**

45 Day Medium Exposure Areas Airplane Zone 2 Wash	Medium Exposure Areas: • Lower Fuselage Skins • Lower Wing Skins • Wing Trailing Edge Structure (Aft Side of the Rear Spar) • Vertical Stabilizer Trailing Edge Structure (Aft Side of the Rear spar) • Horizontal Stabilizer Trailing Edge/Leading Edge • Vertical Stabilizer Trailing Edge Structure (Aft Side of Rear spar) • APU Exhaust	Airplane Zone 2 **NOTE:** **Refer to the applicable Maintenance Manual, Chapter 12, Exterior Cleaning (Wash/Rinse).**
90 Day Low Exposure Areas Airplane Zone 3 Wash	Low Exposure Areas: • All Remaining External Surfaces	Airplane Zone 3 **NOTE:** **Refer to the applicable Maintenance Manual, Chapter 12, Exterior Cleaning (Wash/Rinse).**

NOTE: These progressive wash intervals are a baseline aircraft wash schedule. If an aircraft flies into any Severe Corrosion Areas during its operation route, it may be necessary to increase the frequency of the wash schedule. Refer to the applicable Maintenance Manual, Chapter 51, Corrosion Severity Maps - Description and Operation and Corrosion Prevention and Control Program - Description and Operation.

NOTE: If the airplane flight schedule does not make it possible to align with the 15/45/90 day recommended baseline wash schedule, the operator should use a wash schedule that follows the 15/45/90 day recommended baseline wash schedule as close as possible and that provides effective results at maintaining corrosion protection for the operational environment.

E. Locations for Washing and Rinsing

NOTE: Washing and rinsing is usually done at a washing rack or on the flight line.

(1) Do the full washing at a facility where all contamination and cleaning solutions are caught and disposed of in accordance with local environmental laws.

(2) Do the clean water rinse where all contamination and cleaning solutions will have no effect on adjacent facilities, personnel, and operations.

(3) The different procedures in the section that follows give the instructions to remove contamination that causes and increases corrosion.

F. Water Quality

CAUTION: To prevent corrosion, do not let dissolved salts collect between faying surfaces or in joints, seams, or other entrapment areas.

(1) The quality of water that you use to wash and rinse contaminates from the airplane is important. Much of the world's water contains chlorides, sulfates, and other salts. In areas that you know contain these dissolved salts, Cessna recommends that you use de-ionized, de-mineralized, or reverse osmosis water to wash and rinse the contaminates that cause corrosion from the airplane.

3. Exterior Cleaning (Wash/Rinse)

A. Tools, Equipment, and Consumables

(1) Tools and Equipment

- Access Equipment (Refer to Table 305).
- Protective Covers.

(2) Special Consumables

- As Necessary (Refer to Table 301, Table 302, Table 303 and Table 304).

(3) Reference Material

- Applicable Maintenance Manual, Chapter 6, Access Plates and Panels Identification - Description and Operation
- Applicable Maintenance Manual, Chapter 9, Towing - Maintenance Practices
- Applicable Maintenance Manual, Chapter 12, Windshield and Cockpit Side Window - Servicing
- Applicable Maintenance Manual, Chapter 20, Exterior Finish - Cleaning/Painting
- Applicable Maintenance Manual, Chapter 24, External Electrical Power - Maintenance Practices
- Applicable Maintenance Manual, Chapter 27, Control Lock System - Description and Operation
- Applicable Structural Repair Manual.

B. Prepare the Airplane for the Exterior Cleaning (Wash/Rinse)

(1) Read and know all of the Warnings, Cautions, Notes, instructions, and other data given in this section and in the section before this. Refer to Exterior Cleaning (Wash/Rinse) Considerations in this section.

WARNING: If you will operate the washing rack, use only trained and authorized personnel. All personnel must wear personal protective equipment (PPE), which includes protective clothing. This will help to prevent injury to personnel.

(2) Move the airplane to a washing rack or other area. Refer to the applicable Maintenance Manual, Chapter 9, Towing - Maintenance Practices.

(3) Fully extend the flaps.

(4) Keep all flight controls in their neutral positions. Refer to the applicable Maintenance Manual, Chapter 27, Control Lock System - Description and Operation.

(5) Disconnect external electrical power from the airplane. Refer to the applicable Maintenance Manual, Chapter 24, External Electrical Power - Maintenance Practices.

CAUTION: Do not let servicing platforms, work stands, ladders, and other equipment touch the pitot probes, static ports, and other instrumentation devices. This will help to prevent damage to those devices.

(6) Put access equipment in their positions adjacent to the airplane. Refer to Table 305.

(7) Make sure that all access plates and panels are installed and/or closed. Refer to the applicable Maintenance Manual, Chapter 6, Access Plates and Panels Identification - Description and Operation.

CAUTION: Keep water and abrasive or aromatic cleaners off of and out of the components that use lubricants and/or abrasive-resistant films. This will help to prevent corrosion.

CAUTION: Adhesive residue left on the airplane surfaces by protective covers must be removed.

(8) Use tape and other barrier material to give protection to the areas that follow:

- Air Cycle Machine (ACM) Inlet
- ACM Outlet
- Battery Access Vents
- Fuel Vents (at the wing tips
- Hydraulic Brake Reservoir Overfill Drain
- Hydraulic Brake Reservoir Vent
- Radome Scupper
- Ram Air Inlet
- Static Ports
- Windows and Windshields.

CAUTION: Do not wash landing gear areas until you supply protection for the components. Use the manufacturer's instructions to clean the wheels and the brake assemblies. Refer to the applicable Maintenance Manual, Introduction, Supplier Publication List.

(9) Install protective covers to the areas that follow:

- Air Conditioning Intake Scoop and Exhaust Outlet
- APU Exhaust
- Brakes
- Engine Exhaust
- Engine Inlets
- Generator Inlets (on the engine cowls

- Pitot Tubes
- Wheel Assemblies.

(10) Before you install the protective covers, make sure that the surfaces are clean, with no oil, grease, dirt, or other contamination on them.

WARNING: Be careful when you use degreasers. Degreasers are toxic to your skin, eyes, and respiratory tract. Make sure that your work area has a ventilation system that supplies sufficient fresh air.

CAUTION: Take precautions to prevent entrapment of contamination. The quality of water that you use for washing and rinsing the airplane is important. Much of the world's water contains chlorides, sulfates, and other salts. If you let these salts collect between faying surfaces or in joints, seams, or other entrapment areas, corrosion can result.

CAUTION: The use of heavy degreasers can affect CIC's durability. Use precautions for the preservation of the CIC already applied. Apply the CIC again if they are damaged or removed. Refer to the applicable Maintenance Manual, Chapter 51, Corrosion Inhibitor - Maintenance Practices.

NOTE: In areas that you know contain these dissolved salts, Cessna recommends that you use de-ionized, de-mineralized, or reverse osmosis water to wash and rinse these contaminates from the airplane.

(a) Remove contamination from the surfaces with an approved degreaser. Refer to Table 302.

(b) Clean the surfaces with cheesecloth and a cleaning compound. Refer to Table 301 and Table 305.

(c) Rinse the surfaces with clean water. Refer to Table 305.

(d) Dry the surfaces with clean shop towels. Refer to Table 305.

C. Airplane Wet Wash.

CAUTION: Do not use a pressure washer to clean the exterior of the airplane. High-pressure water can remove grease and other lubricants and can damage sensitive components. All water pressure that you use to clean the airplane must be applied at less than 100 psi (689.48 kPa).

CAUTION: Be careful that you keep water and cleaning compounds from wire bundles, electrical switches, and connectors. This will help to prevent damage to them.

CAUTION: Do not remove the protective covers until you have completed all washing and rinsing.

CAUTION: Use cool, clean water to reduce the exterior surface temperatures to ambient. Cleaning compounds applied to hot surfaces can damage the exterior finish.

NOTE: The airplane wet wash is an acceptable method to clean all external areas on the airplane.

NOTE: If necessary, you can use clean water and cleaning compounds to soak the surfaces.

NOTE: During the airplane wet wash, any surfaces with cleaners on them must not dry before they are rinsed with clean water.

NOTE: For landing gear components cleaning instructions, refer to Airplane Special Area Cleaning in this section.

(1) Spray the surfaces of the areas to be cleaned. Refer to Table 305.

CAUTION: Use only clean water to wash and rinse the contaminates from the airplane. Cessna recommends that you use de-ionized, de-mineralized, or reverse osmosis water to wash and rinse the contaminates from the airplane. Refer to Exterior Cleaning (Wash/Rinse) Considerations in this section.

(2) Apply cleaner to areas to be cleaned. Refer to Table 301 for a list of approved cleaners.

CAUTION: Clean only a small area at one time. This will make sure that the cleaning compounds do not dry on the surface.

NOTE: Follow cleaner manufacturer's recommended soak times.

(3) Clean the area using a soft cloth or soft bristle brush. Refer to Table 304.

(4) Rinse each area with clean water immediately after it is washed.

(5) Carefully clean and dry these areas with clean shop towels or clean cotton cloths.

(6) Apply lubricants and corrosion inhibiting compounds again if they were accidentally removed. Refer to the applicable

Maintenance Manual, Chapter 51, Corrosion Inhibitor - Maintenance Practices.

(7) Remove the protective covers as applicable.

(8) Clean the landing gear components. Refer to Airplane Special Area Cleaning in this section.

D. Airplane Alternative Wash

CAUTION: Use only clean water to wash and rinse the contaminates from the airplane. Cessna recommends that you use de-ionized, de-mineralized, or reverse osmosis water to wash and rinse the contaminates from the airplane. Refer to Exterior Cleaning (Wash/Rinse) Considerations in this section.

CAUTION: Be careful that you keep water and cleaning compounds from wire bundles, electrical switches, and connectors. This will help to prevent damage to them.

CAUTION: Do not let cleaning compounds and/or water collect in low areas. This will help to prevent corrosion in those areas.

NOTE: The best procedure for washing the airplane is the full water-based washing procedure (wet wash). Because of environmental laws at some locations, a full water-based washing is not permitted. The alternative wash method is a satisfactory equivalent.

(1) To clean surfaces that are not smooth, do as follows

(a) Put clean shop towels below the area to be cleaned to collect cleaning compounds.

(b) Apply mild detergent cleaning compound. Allow to soak per the manufacturer's recommendations. Refer to Table 301, and Table 305.

CAUTION: Clean only a small area at one time. This will make sure that cleaning compounds do not dry on the surface.

NOTE: Some contamination is difficult to get access to, but it is important that you remove all of it.

1 Make sure that you clean all fasteners, angles, crevices, stiffener assemblies, and extended structures.

(c) Use a soft bristle brush to fully clean the treated areas.

(d) Using a spray bottle or garden-type sprayer, rinse each area with clean water immediately after it is washed. Refer to Table 304.

1 Carefully examine these areas and continue to clean them until you have removed all contamination.

(e) Dry each area with clean shop towels.

(f) Remove the collected water and cleaning compounds.

1 Dispose of the collected water and cleaning compounds in accordance with local environmental laws.

(g) Make sure that these areas have sufficient lubrication.

(h) Apply corrosion inhibiting compound again if it was accidentally removed. Refer to the applicable Maintenance Manual, Chapter 51, Corrosion Inhibitor - Maintenance Practices.

(2) Remove the protective covers as applicable.

E. Airplane Dry Wash

(1) To clean surfaces that are smooth (airplane skins), do as follows:

NOTE: This is the dry washing procedure and it is only approved to clean smooth surfaces on the wing, fuselage, and empennage surfaces.

NOTE: This is an apply-and-remove (wipe on/wipe off) cleaning procedure.

(a) Apply the dry wash compound with clean shop towels, clean cotton cloths, or a clean nonmetal cleaning pad. Refer to Table 303 and Table 305.

(b) Quickly remove the dry wash compound from the surface.

(c) Continue to apply and remove the dry wash compound until you have removed all contamination.

(d) Make sure that the surfaces are clean and dry, with no remaining residue.

(e) Dispose of the dry wash compound and shop towels, cotton cloths, or nonmetal cleaning pad in accordance with local environmental laws.

(2) Remove the protective covers as applicable.

F. Airplane Special Area Cleaning.

WARNING: Be careful when you use degreasers. Degreasers are toxic to your skin, eyes, and respiratory tract. Make sure that your work area has a ventilation system that supplies sufficient fresh air.

CAUTION: The use of heavy degreasers can affect CIC's durability. Use precautions for the preservation of the CIC already applied. Apply the CIC again if they are damaged or removed. Refer to the applicable Maintenance Manual, Chapter 51, Corrosion Inhibitor - Maintenance Practices.

CAUTION: Do not use aerosol-type fluids on the landing gear hydraulic systems. The propellants in aerosols can damage the packing and other internal components of the landing gear piston.

CAUTION: Be careful when you clean the landing gear piston surface. You must not cause scratches on the piston surface. A scratch on the piston surface can cause leakage and failure of the cylinder.

CAUTION: Do not leave too much hydraulic fluid on the piston surface. This will help to keep hydraulic fluid off other landing gear components.

CAUTION: Do not clean or rinse the brake assemblies. The carbon disks in the brake assemblies must be kept dry. A change in the carbon properties and possible freezing of the brake assemblies can occur if water gets on the disks. Use the manufacturer's instructions to clean the wheels and the brake assemblies. Refer to the applicable Maintenance Manual, Introduction, Supplier Publication List.

CAUTION: Take precautions to prevent entrapment of contamination. The quality of water that you use for washing and rinsing the airplane is important. Much of the world's water contains chlorides, sulfates, and other salts. If you let these salts collect between faying surfaces or in joints, seams, or other entrapment areas, corrosion can result.

NOTE: In areas that you know contain these dissolved salts, Cessna recommends that you use de-ionized, de-mineralized, or reverse osmosis water to wash and rinse the contaminates from the airplane.

NOTE: This procedure is used to clean the landing gear component (cylinder housing, door, piston, trailing link, trunnion, and wheel) surfaces.

(1) To clean the landing gear piston surface (the external surface that you can see), do as follows:

(a) Carefully remove sand, dirt, salts, and other foreign object debris (FOD) with a nonwoven fabric cleaning cloth and hydraulic fluid.

1 Remove the contamination away from the seals and the seal junctions.

2 Use your hands to make sure that the piston surface is fully clean.

3 Make sure that the piston surface is not dry.

NOTE: The piston surface must only have a sufficient layer of hydraulic fluid on it. There must not be drops of unwanted hydraulic fluid on the cylinder housing.

(2) To clean the landing gear door, linkage, and cylinder housing surfaces, do as follows:

(a) Apply a mild detergent or degreaser and allow to soak per the manufacturer's recommendations.

(b) Using a soft bristle brush, clean cotton cloths, or clean shop towels, fully clean the exterior surfaces. Refer to Table 301, Table 302, and Table 305.

1 Using a hose, spray bottle, or garden-type sprayer, rinse each area fully with clean water to make sure that you have removed all of the cleaning residue.

CAUTION: Do not clean or rinse the brake assemblies. The carbon disks in the brake assemblies must be kept dry. A change in the carbon properties and possible freezing of the brake assemblies can occur if water gets on the disks. Use the manufacturer's instructions to clean the wheels and the brake assemblies. Refer to the applicable Maintenance Manual, Introduction, Supplier Publication List.

(3) To clean the landing gear trunnion and the trailing link surfaces, do as follows:

(a) Apply a mild detergent to a clean shop towel to clean the exterior surfaces. Refer to Table 301 and Table 305.

NOTE: Do not use a spray cleaner on the trunnion or the trailing link.

1 Using a spray bottle, rinse the trunnions and trailing links with clean water to remove all of the cleaning residue.

CAUTION: Do not clean or rinse the brake assemblies. The carbon disks in the brake assemblies must be kept dry. A change in the carbon properties and possible freezing of the brake assemblies can occur if water gets on the disks. Use the manufacturer's instructions to

clean the wheels and the brake assemblies. Refer to the applicable Maintenance Manual, Introduction, Supplier Publication List.

(4) To clean the wheels, do as follows:

(a) Apply a mild detergent or dry cleaning compound to a shop towel or nonmetal cleaning pad and wipe as necessary to remove contaminates.

1 Make sure that you remove all of the cleaning residue.

(5) Polish the leading edge metal surfaces. Refer to the applicable Maintenance Manual, Chapter 20, Exterior Finish - Cleaning/Painting.

(6) Clean the windshield and the windows. Refer to the applicable Maintenance Manual, Chapter 12, Windshield and Cockpit Side Window - Servicing.

(7) To clean the engine compressor, do as follows:

(a) For data on how to wash the engine compressor, refer to the applicable engine manufacturer's maintenance manual.

G. Airplane Runway Deicing (RDI) Clean Water Rinsing.

NOTE: The clean water rinsing procedure is to be done if the airplane has accidental RDI fluid contamination. Cessna recommends that you do this rinsing procedure in the next three days after the RDI fluid contamination has occurred. Deicing fluid can quickly cause corrosion on the airplane exterior.

(1) Do the RDI clean water rinsing procedure only on the high exposure areas - Airplane Zone 1. Refer to Exterior Cleaning (Wash/Rinse) Considerations in this section.

(2) Make sure that all of the necessary rinsing preparation is done. Refer to Prepare the Airplane for the Exterior Cleaning (Wash/Rinse) in this section.

(3) Using a low-pressure garden hose, a garden-type sprayer or a spray bottle, rinse the high exposure areas with clean water as follows:

CAUTION: Do not use a pressure washer. High-pressure water can remove grease and other lubricants, and can damage sensitive components. All water pressure that you use to rinse the airplane must be applied at less than 100 psi (689.48 kPa).

(a) Moving the sprayer in a side-to-side motion, rinse the landing gear.

CAUTION: Do not clean or rinse the brake assemblies. The carbon disks in the brake assemblies must be kept dry. A change in the carbon properties and possible freezing of the brake assemblies can occur if water gets on the disks. Use the manufacturer's instructions to clean the wheels and the brake assemblies. Refer to the applicable Maintenance Manual, Introduction, Supplier Publication List.

NOTE: Do not point the sprayer into openings and surfaces that are adjacent to the openings.

(b) Let the water drain from the surfaces. Use clean shop towels to absorb any residual water.

CAUTION: Do not try to open the small drain holes on the bottom of the fuselage from out of the airplane. This can cause damage to the diaphragms on the inboard side of the fuselage skin.

NOTE: Make sure that there is no water left in the wheel wells, flap coves, and other areas.

(4) Remove the protective covers as applicable.

H. Deicing/Anti-Icing Fluid Residue Wash.

WARNING: Be careful when you use degreasers. Degreasers are toxic to your skin, eyes, and respiratory tract. Make sure that your work area has a ventilation system that supplies sufficient fresh air.

CAUTION: The use of heavy degreasers can affect CIC's durability. Use precautions for the preservation of the CIC already applied. Apply the CIC again if they are damaged or removed. Refer to the applicable Maintenance Manual, Chapter 51, Corrosion Inhibitor - Maintenance Practices.

CAUTION: Do not use a pressure washer to clean the exterior of the airplane. High-pressure water can remove grease and other lubricants and can damage sensitive components. All water pressure that you use to clean the airplane must be applied at less than 100 psi (689.48 kPa).

CAUTION: Be careful that you keep water and cleaning compounds from wire bundles, electrical switches, and connectors. This will help to prevent damage to them.

CAUTION: Do not remove the protective covers until you have completed all washing and rinsing.

CAUTION: Do not clean or rinse the brake assemblies. The carbon disks in the brake assemblies must be kept dry. A change in the carbon properties and possible freezing of the brake assemblies can occur if water gets on the disks. Use the manufacturer's instructions to clean the wheels and the brake assemblies. Refer to the applicable Maintenance Manual, Introduction, Supplier Publication List.

NOTE: It is necessary to wash the airplane if deicing or anti-icing fluid residue was discovered during the deicing/anti-icing post-flight inspection or if deicing or anti-icing fluid has been applied to the airplane 3 to 5 times in the past 10 days.

(1) Identify the areas to be cleaned.

(a) If the airplane had deicing or anti-icing fluid residue discovered on it during a deicing/anti-icing post-flight check, the areas to be cleaned are the areas where deicing or anti-icing fluid residue were discovered.

(b) If the airplane had deicing or anti-icing fluid applied 3 times in the past 10 days, the areas to be cleaned are as follows:

1 Left and right wing leading edges, upper surfaces, and lower surfaces.

2 Rear spar area of the left and right wings with the flaps extended.

3 Horizontal and the vertical stabilizers.

4 Control surfaces and the control surface clearances.

5 Speed brakes.

6 Engine inlets.

7 Fuselage surfaces forward of the engine inlets.

8 Antennas.

9 Angle-of-attack sensors, TAT probes, ice detector probes, pitot heads, and static ports.

10 Fuel tank and the fuel cap vents.

11 Air inlet scoops.

12 Areas around access doors.

13 Landing gear, wheel wells, and related cables, pulleys, and all other hardware.

(2) If the airplane had deicing or anti-icing fluid applied 3 times in the past 10 days, do the Airplane Wet Wash in this section.

NOTE: It is necessary to do the Airplane Wet Wash and then continue with this procedure to completely remove deicing/anti-icing fluid residue.

(3) Put clean shop towels below the area to be cleaned to collect cleaning compounds.

(4) Spray the surfaces of the areas to be cleaned.

CAUTION: Use only clean water to wash and rinse the contaminates from the airplane. Textron Aviation recommends that you use de-ionized, de-mineralized, or reverse osmosis water to wash and rinse the contaminates from the airplane. Refer to Exterior Cleaning (Wash/Rinse) Considerations in this section.

(5) Apply heavy duty cleaner (degreaser) to the areas to be cleaned. Refer to Table 302 for a list of approved heavy duty cleaners.

CAUTION: Clean only a small area at one time. This will make sure that the cleaning compounds do not dry on the surface.

NOTE: Follow cleaner manufacturer's recommended soak times.

(6) Clean the area using a soft cloth or soft bristle brush. Refer to Table 304.

NOTE: Soft bristle brushes can be presoftened by soaking in the cleaning solution to be used.

(7) Rinse each area with clean water immediately after it is washed.

(8) Carefully clean and dry these areas with clean shop towels or clean cotton cloths.

(9) Inspect the areas that were cleaned for anti-icing or deicing fluid residue.

(a) If the residue is still visible or if there is still contamination in the areas to be cleaned, do the deicing/anti-icing fluid residue wash again.

(10) Apply lubricants or corrosion inhibiting compounds again if they were accidentally removed or contaminated. Refer to the

applicable Maintenance Manual, Chapter 51, Corrosion Inhibitor - Maintenance Practices.

l. Put the Airplane Back to its Initial Condition.

(1) Remove all protective covers, tape, and other barrier materials from the airplane.

(2) Remove all access equipment from the area.

(3) Release all of the control locks. Refer to the applicable Maintenance Manual, Chapter 27, Control Lock System - Description and Operation.

(4) Move the airplane back to its initial location. Refer to the applicable Maintenance Manual, Chapter 9, Towing - Maintenance Practices.