



**Course:** Aircraft Paint Preparation Training Course

**Course Number:** CGTCAPTC101

**Course Length:** Approximately 6 hours

**Class Size:** Up to 10

**Course description:**

This course is designed to provide new Aircraft Paint Preparation Technicians with familiarization of materials, safety, processes, and equipment used during paint preparation. The course will provide students with instruction on how to perform critical tasks such as sanding various types of structure, masking, cleaning, and painting. Particular focus is on mechanical removal of paint coatings without causing damage to the underlying composite material. Students will be assessed on critical tasks in accordance with industry standards.

**Materials Familiarization**

- Understand the differences between metallic and composite structures:
  - Identify composite and metallic structure
  - Understand special requirements for composites
  - Understand the delicate nature aircraft structure and the costs associated with damage
    - Direct costs, lost time, rework.
- Review areas of the aircraft that are typically easily damaged during the paint prep process.

**Paint Process Overview**

- Describe the strip and paint process of an aircraft:
  - Induction and hangar setup
  - Sanding of areas where stripper will not be applied
  - Masking of critical assemblies
    - Composites, windows, flight controls, etc.
  - Stripper application
  - Wash
    - General process overview
    - Water break testing
  - Surface treatment
    - For paint adhesion and corrosion protection
  - Sealant application
    - Provide information on sealant types, mixing, and application techniques
  - Mask for coatings

- Coating application
  - Provide general information about the coating application process such as number of coats, cure times, etc.
- Trim color application
- Demasking
- Stenciling.
- Provide an overview of quality checks that are imbedded within the aforementioned processes:
  - Convey that their role as a paint prep. tech is crucial to a quality paint job and their reputation

### **Painting Equipment Overview**

- Demonstrate how to locate and reference the process specific PPE requirements.
- Demonstrate proper use of the following PPE items:
  - Respirators
  - Forced air hoods
  - Coveralls, head coverings, etc.
  - Hand, eye, and ear protection
- Describe the hazards associated with chromium when sanding coatings
- Provide an overview of safety with solvents and the rag control processes that are in place
- Describe the types of equipment and consumables used during the painting process:
  - Dual action (DA) sanders
  - Orbital sanders
  - Air hoses and manifolds
  - Types and grits of sanding discs
  - Different tapes and masking materials
  - Aerial lifts:
    - Hazards and safe operating limits of aerial lifts
    - Ensure adequate distance from the aircraft at all times
  - Fall protection:
    - Understand where fall protection is required
    - Proper use of harnesses and descent reels
- Reiterate the consequences of aircraft damage

### **Paint Preparation Practical Assessment**

- Demonstrate proficiency in critical skills associated with preparing aircraft for paint:
  - Sand surfaces with a sander:
    - Select the proper grit for the surface to be sanded
    - Demonstrate proper techniques when using the sander such as speed, force applied, and size of the area to be focused on
    - Demonstrate a knowledge of when a sanding pad should be replaced during the sanding process (emphasis on cost savings)
  - What to avoid:

- Sanding into the wire mesh for landing and lightning protection
  - Using the wrong type of sandpaper that is too course
- Remove and apply sealants:
  - Only use approved non-metallic tooling