

## Trip Report for Technical Support of PreKoted E-3 Aircraft

**Dates of Visit**

April 1-3, 2010

**Destination**

Tinker AFB, Oklahoma

### **Purpose/Background**

- Inspection of PreKoted E-3 Tail # 80-0137
- Support E-3 SPO with removal of OML coating system with DeKote-AF on E-3 processed with PreKote Surface Pretreatment in 2005 with 2 step application process
- This is the second E-3 treated with PreKote. The first was stripped and evaluated for corrosion and was processed through PDM with no unusual corrosion found

### **Pantheon Enterprises Attendees**

**Name**

**Position**

Leo Rosales

Engineer

### **Main Contact**

**Name**

**Company**

**Position**

Hung Doan

Tinker AFB

E-3 Engineering SPO

### **Additional Contacts**

**Name**

**Company**

**Position**

Louise Nguyen

Tinker AFB

Materials Engineering Test Lab

Van Nguyen

Tinker AFB

Environmental

Jay Watley

Tinker AFB

Aircraft Production Engineering

Shelvie Tabb

Tinker AFB

Production

Jiby Varughese

Tinker AFB

Environmental Engineer

Bernie Habib

Tinker AFB

Structures Corrosion Engineer

Heather McCall

Tinker AFB

Engineer

Chris Hensley

Aerochem

President

Sonny Beesley

Aerochem

COO/VP

### **Notes**

#### **I. E-3 Inspection**

Overall inspection of the aircraft in terms of adhesion and corrosion was positive with no areas of concern prior to strip. Loss of adhesion of topcoat to surfacing primer on some leading edges and engine pylons was noted. Loss of adhesion is typical in these high erosion areas and thus was not of great concern in terms of the inspection. Also noted were a few small areas under the wing those were scuff sanded and repaired. Additional painting was apparent in areas where the aircraft markings were changed.

## II. E-3 Stripping

- Aircraft: Boeing E-3
- Aircraft Tail # 80-0137
- Surface Pretreatment: PreKote
- Akzo Nobel Paint and Primer System
  - PPG Polysulfide Spray-able Sealant PR-1436G (Upper Wing Surface)
- Stripper Application Procedure: DeKote-AF
  - Spray DeKote-AF on entire mold line
  - Allow DeKote-AF to dwell on aircraft and rinse re-apply until all paint is removed
- Time started: 4:00am 5/2/2010    Time Completed: 6:00am 5/3/2010
- Manpower:
  - Fuselage, wings and vertical: 15 -20 workers depending on shift
- Amount of DeKote-AF used: 8-9 drums
- Notes from application:
  - The first application of Dekote-AF began at 4:00am and was completed at 5:45 am
  - Temperature 73degrees / 202 gallons used of DeKote-AF
  - The first water rinse was completed at 8:00am utilizing standard hose
  - After visual inspection it was noted that 95% of the top coat was removed and there were some areas of exposed skin where the DeKote-AF had removed all of the coating
  - Second application of DeKote-AF started at 9:35am and was completed at 11:00am
  - Temperature 85degrees / 175.36 gallons used of DeKote-AF
  - Visual inspection at 12:00pm primer showed signs of release from the OML of the aircraft
  - Second rinse started at 2:30pm with a power pressure sprayer with the primer being removed very easily 160degrees at 1800PSI
  - After visual inspection 98% of all paint systems were removed including the PPG polysulfide spray-able sealant PR-1436 on upper wing surface
  - Third application of DeKote-AF started at 5:30pm and completed at 6:30pm (this application was performed for a spot and touch up)
  - Temperature 83degrees / 90.13 gallons used of DeKote-AF
  - Final rinse started at 3:00am and completed at 6:00am
- Recommendations for future applications:
  - Possibility of earlier rinse of both topcoat and primer with the use of DeKote-AF Stripper
  - Use of air wand to remove first stripper application and loosened paint would further reduce application time of DeKote-AF by allowing the stripper to react with the painted surface continuously during second application of DeKote-AF and decrease water consumption greatly.

## Action Items

- Distribute PreKote stripping trip report to all attendees
- Communicate results of stripping to all SPOs at Tinker AFB

## Trip Results / Conclusions

- Post Strip inspection of aircraft showed no areas of corrosion or areas of concern and a very clean strip of all coating materials and/or paint.
- The use of PreKote on Aircraft would no longer be impeded by the stripping phase of operations at Air Force Bases with the use of DeKote-AF. The use of both of these products would decrease painting and stripping production of aircraft with the added benefits that both products bring in cost savings, applications time reduction, along with corrosion protection and paint adhesion enhancement.

## Appendix: Inspection Photos



Image 1: First application stripper topcoat & surfacer primer popping off to primer



Image 2: After first rinse spots of bare aluminum

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Image 3: 12:00pm inspection release of primer is noted waited until 2:30 for pressure rinse



Image 4: Second rinse using power washer with easy removal of primer



Image 5: Final touch-up strip application of DeKote AF

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Image 6: Final rinse inspection wing



Image 7: Final rinse inspection fuselage



Image 8: Worker final inspection of rinse

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Image 9: Final inspection of fuselage