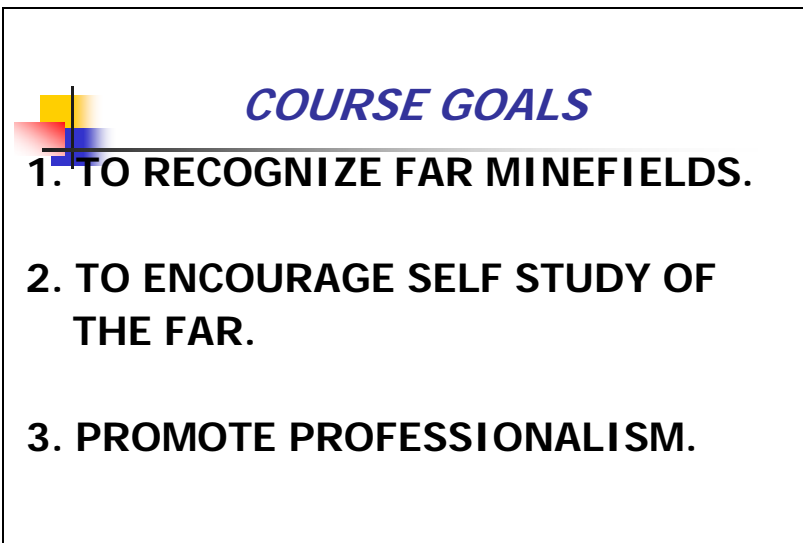


## MINEFIELD AVOIDANCE



## MINEFIELD AVOIDANCE



### ***COURSE OVERVIEW***

---

- **A FRANK EXPLANATION ON WHY WE GET IN TROUBLE WITH THE FAR.**
- **EXPLORE AND DEFUSE 5 REGULATORY MINEFIELDS**



### ***MINEFIELD #1***

---

#### **MINEFIELD DESIGN**



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## MINEFIELD AVOIDANCE



### ***MINEFIELD #1***

- **PROBLEM: SOMETIMES WE FIND OURSELVES LOST IN REGULATORY MINEFIELDS BECAUSE MOST OF THE TIME WE THINK WE KNOW THE FAR WE ARE WORKING TO -----BUT IN REALITY WE DON'T.**



### ***MINEFIELD #1: THE DESIGN OF THE FAR***

- CAUSE: MECHANICS STUDY THE FAR ONLY THREE TIMES IN OUR CAREERS:**
- 1. TO PASS THE FAA TESTS.**
  - 2. WHEN WE ARE IN TROUBLE.**
  - 3. WHEN WE WANT SOMETHING.**



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## MINEFIELD AVOIDANCE

### ***FAR DESIGN OVERVIEW***

- THE FEDERAL AVIATION ACT OF 58 IS NOW IN TITLE 49 OF THE US CODE
- FAR IS DIVIDED INTO:  
CHAPTERS,  
PARTS, SUBPARTS  
AND SECTIONS

### ***FAR DESIGN OVERVIEW***

- FAR PARTS AND SECTIONS ARE IDENTIFIED BY ODD NUMBERS SO NEW PARTS OR SECTIONS CAN BE ADDED AS NEEDED.  
(REF: PARTS -1, 21, 43, 91 ETC.  
SECTIONS -43.1 43.5, 43.9 ETC)



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## MINEFIELD AVOIDANCE



### ***FAR DESIGN***

- FAR 39 AND FAR 43 DEAL WITH MAINTENANCE AND STANDARDS.
- FAR 45 AND 47 CONCERNS MARKINGS AND REGISTRATION.
- FAR 61 AND 65 CONCERNS AIRMAN CERTIFICATION.



### ***FAR DESIGN***

- PART 91 CONTAINS INSPECTION, RECORD KEEPING REQUIREMENTS, AND EQUIPMENT REQUIREMENTS FOR DIFFERENT OPERATIONS.



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## MINEFIELD AVOIDANCE



### ***FAR DESIGN***

- **PART 119 THROUGH PART 147 SETS ORGANIZATIONAL DESIGN REQUIREMENTS AND ADDITIONAL PERFORMANCE STANDARDS.**



### ***FAR DESIGN***

- **VERY FEW RULES STAND ALONE. MANY INTERFACE: (E.G.. AN ANNUAL INSPECTION IS REQUIRED BY 91.409 AND MUST BE PERFORMED IN ACCORDANCE WITH 43.11, 43.13, AND 43.15)**



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## MINEFIELD AVOIDANCE



### ***MINEFIELD #2***

---

#### **THE MEANING OF WORDS**



### ***MINEFIELD #2 THE MEANING OF WORDS***

---

- **PROBLEM: OVER TIME MECHANICS ATTACH THEIR OWN MEANING TO WORDS THAT ARE USED IN THE FAR. IN MANY CASES THEIR MEANING IS USUALLY DIFFERENT THAN THE LEGAL DEFINITION OF THE WORD.**



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## MINEFIELD AVOIDANCE



### ***FOR EXAMPLE***

- HAVE YOU EVER HEARD THIS EXPRESSION?  
"AS LONG AS THE REPAIR IS EQUAL  
TO -----OR BETTER THAN----- THE  
ORIGINAL" --- YOU ARE LEGAL!



### ***MINEFIELD #2***

- "BETTER THAN" IS A CORRUPTION  
OF FAR SECTION 43.13 (b) WHICH  
SAYS THE WORK MUST BE "EQUAL  
TO" THE ORIGINAL. IF YOU MADE  
THE REPAIR "BETTER THAN" YOU  
PERFORMED AN ALTERATION.





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## MINEFIELD AVOIDANCE



### ***ANOTHER EXAMPLE***

- **“AN OVERHAULED ENGINE AND A REBUILT ENGINE ARE THE SAME THING. BOTH ENGINES HAVE TO MEET MANUFACTURER’S SPECS.”**



### ***MINEFIELD #2***

- **OVERHAULED: MEANS IT MUST BE CLEANED, INSPECTED, REPAIRED AS NEEDED AND IT MEETS SERVICE LIMITS.**
- **REBUILT: IS THE SAME AS OVERHAULED, EXCEPT IT MUST MEET NEW PART LIMITS (REF: 43.2)**

## MINEFIELD AVOIDANCE



### ***STILL ANOTHER EXAMPLE***

- I AM A LICENSED AIRFRAME AND POWERPLANT MECHANIC WITH CLEARLY DEFINED PRIVILEGES AND LIMITATIONS AS IDENTIFIED IN THE FEDERAL AVIATION REGULATIONS.



### ***ANSWER:***

- THE FAA NEVER "LICENSES" ANYONE. YOU ARE A CERTIFICATED MECHANIC OR A CERTIFICATED PILOT. IF YOU WERE "LICENSED" IT MEANS THE FAA IS LIABLE UNDER TORT LAW FOR ANY MISTAKES YOU MAKE.



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## MINEFIELD AVOIDANCE



### **MINEFIELD #2**

- **CYCLES:** MEAN DIFFERENT THINGS TO DIFFERENT MANUFACTURERES. SUCH AS:
- A ENGINE START IS A CYCLE
- A START + A TAKE OFF AND LANDING IS A CYCLE.
- A START AND SHUT-DOWN IS A CYCLE.



***ANYBODY FEEL UP  
TO GIVE A FAA  
INSPECTOR A  
DEFINITION OF  
THE TERM:***

**"AIRWORTHY"**



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## MINEFIELD AVOIDANCE



### ***AIRWORTHY:***

- IS WHEN AN AIRCRAFT OR ONE OF ITS COMPONENT PARTS MEETS IT'S TYPE DESIGN OR PROPERLY ALTERED CONDITION AND IS IN A CONDITION FOR SAFE OPERATION. (ref: NTSB case law)



### ***ANOTHER QUESTION ABOUT WORDS***

WHAT WORD BEST DESCRIBES  
WHAT A MECHANIC PERFORMS  
ON AIRCRAFT AND THEIR  
COMPONENT PARTS?



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## MINEFIELD AVOIDANCE



***ANSWER:***

**MAINTENANCE**



***QUESTION?***

**DEFINE THE WORD:**

**"MAINTENANCE"**

## MINEFIELD AVOIDANCE



### ***MAINTENANCE IS:***

**THE INSPECTION, OVERHAUL,  
REPAIR, PRESERVATION AND THE  
REPLACEMENT OF PARTS, BUT  
EXCLUDES PREVENTIVE  
MAINTENANCE.**



### ***QUESTION?***

**DEFINE THE WORDS:  
“PREVENTIVE MAINTENANCE.”**

## MINEFIELD AVOIDANCE

### *PREVENTIVE*

### *MAINTENANCE*

- MEANS SIMPLE OR MINOR PRESERVATION OPERATIONS AND THE REPLACEMENT OF SMALL STANDARD PARTS NOT INVOLVING COMPLEX ASSEMBLY OPERATIONS

### *ANOTHER QUESTION?*

WHERE ARE THE TERMS:

“MAINTENANCE AND  
PREVENTIVE MAINTENANCE”

DEFINED IN THE REGULATIONS?

## MINEFIELD AVOIDANCE



### ***ANSWERS***

- **THE DEFINITIONS ARE FOUND IN FAR 1 "DEFINITIONS AND ABBREVIATIONS."**



### ***ANSWER:***

- **FAR 1. IS YOUR AVIATION DICTIONARY BEFORE YOU TAKE A TEST, OR LOOK FOR A LOOP HOLE, OR GET SOMETHING FROM THE FAA IT WOULD BE A GOOD IDEA TO LOOK THIS FAR OVER.**



## MINEFIELD AVOIDANCE



### ***MINEFIELD #3***

---

**WHO ARE WE, AND WHAT DO  
WE DO?**



### **NOTICE:**

---

- **I BET SOME OF YOU ARE SITTING  
THERE NOT AWARE THAT YOU ARE  
IN VIOLATION OF A FAR!**



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## MINEFIELD AVOIDANCE



### **THAT FAR IS:**

**FAR 65.21 IS : CHANGE OF ADDRESS REQUIREMENT. YOU HAVE 30 DAYS TO NOTIFY THE : FAA AIRMAN CERTIFICATION BRANCH  
P.O. BOX 25082  
OKC, OK 73125**



### ***WHAT WE DO!***

- **A&P MECHANICS AND IA “APPROVE” THE AIRCRAFT OR THEIR COMPONENT PARTS FOR RETURN TO SERVICE ONLY.**
- **A&P MECHANICS , IA DO NOT “RETURN THE AIRCRAFT OR COMPONENT PARTS FOR RETURN TO SERVICE.” REF: 43.9-11**



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## MINEFIELD AVOIDANCE

### ***WHO RETURNS THE AIRCRAFT TO SERVICE ?***

- **THE OWNER OR OPERATOR  
RETURNS IT TO SERVICE.  
BECAUSE THEY ARE PRIMARY  
RESPONSIBLE FOR  
AIRWORTHINESS. (REF: 91.7,  
91.403)**

### ***HEY FAA I NEVER SEEN A LOG BOOK ENTRY FROM ANY PILOT RETURNING ANYTHING TO SERVICE!***

- **FOR PART 91 OPERATORS , FAA POLICY  
STATES THAT WHEN A PILOT TAXIS OUT  
WITH THE INTENTION OF FLIGHT--THE  
PILOT JUST RETURNED IT TO SERVICE.**



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## MINEFIELD AVOIDANCE



### ***QUESTION:***

- **WHAT TWO JOB FUNCTIONS CAN AN A&P CANNOT PERFORM UNDER THE PRIVILEGES OF HIS OR HER CERTIFICATE?**



### ***ANSWER:***

- **AN A&P CANNOT PERFORM MAJOR REPAIRS OR MAJOR ALTERATIONS TO PROPELLERS OR INSTRUMENTS. (REF: 65.81)**

## MINEFIELD AVOIDANCE



### **MINEFIELD #3**

#### **MAJOR REPAIRS AND MAJOR ALTERATIONS.**

- IT IS THE MECHANIC NOT THE IA WHO DETERMINES IF THE REPAIR OR ALTERATION IS MAJOR OR MINOR.
- THE IA CAN APPROVE FOR RETURN TO SERVICE FOR A MAJOR REPAIR OR MAJOR ALTERATION BUT HE CANNOT PERFORM THE WORK UNDER HIS IA.



### ***MINEFIELD #4***

#### **THE DATA TRAP**



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## MINEFIELD AVOIDANCE



### ***WHAT IS DATA ?***

- DATA IS WHAT WE USE TO PERFORM MAINTENANCE.
- DATA CAN BE PICTURES, DRAWINGS, SCHEMATICS, CALCULATIONS, WEIGHT AND BALANCE, ETC.



### ***TWO KINDS OF DATA***

- ACCEPTABLE DATA WHICH IS USED FOR ALL MAINTENANCE EXCEPT MAJOR REPAIRS AND MAJOR ALTERATIONS (REF: 43.13)
- APPROVED DATA WHICH IS USED FOR MAJOR REPAIRS/ALTERATIONS (REF: 65.95, 121.379, 135.437, 145.51)



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## MINEFIELD AVOIDANCE



### ***ACCEPTABLE DATA***

- AC 43.13-1B AND 2A
- MANUFACTURER'S MANUALS FOR AIRCRAFT TC AFTER JAN 1, 1980.
- SERVICE BULLETINS
- PART 121 AND PART 135 MANUALS



### ***APPROVED DATA***

- TYPE CERTIFICATE (T.C.) DATA OR DRAWINGS
- S.T.C.
- AIRWORTHINESS DIRECTIVES
- DER/DAS APPROVED DATA
- APPLIANCE MFR'S MANUAL
- ANYTHING STAMPED FAA APPROVED.

## MINEFIELD AVOIDANCE



### ***APPROVED DATA***

- MANUFACTURER'S MANUALS FOR AIRCRAFT ORIGINALLY TC PRIOR TO JAN 1, 1980. (NEW POLICY FOUND IN FAA NOTICE 8300.119)



### ***AC 43.13-1B "APPROVED DATA FOR MAJOR REPAIRS"***

- APPROPRIATE TO THE PRODUCT .
- APPLICABLE TO THE REPAIR BEING MADE.
- NOT CONTRARY TO MFR'S DATA.
- IDENTIFY THE AC DATA BY CHAPTER ,PAGE, AND PARAGRAPH IN BLOCK 8 OF THE FORM 337.



## MINEFIELD AVOIDANCE



### *AC 43.13-1B*

### *MINEFIELDS*

---

- DO NOT USE REPAIR DATA IN THE AC FOR ALTERATIONS.
- DO NOT USE THE DATA TO REPAIR PRESSURE VESSELS.
- DO NOT GIVE INCORRECT AC DATA REFERENCES ON THE FORM 337.



### *MINEFIELD #5*

---

**SIGNING YOUR LIFE  
AWAY**

## MINEFIELD AVOIDANCE



### ***PROBLEM:***

**MOST MECHANICS ARE NOT AWARE  
OF WHAT RESPONSIBILITIES THEY  
CARRY WHEN THEY SIGN OFF WORK  
OR PERFORM AN INSPECTION.**



***LETS LOOK AT MAINTENANCE  
AND INSPECTION RECORD  
KEEPING***



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## MINEFIELD AVOIDANCE

### ***MAINTENANCE ENTRY:***

***REF: 43.9***

- A DESCRIPTION OF OR A REFERENCE TO THE DATA USED (ACCEPTABLE DATA).
- DATE OF COMPLETION OF THE WORK.
- NAME OF THE PERSON PERFORMING THE WORK.. (REF: 43.3)
- NAME & SIGNATURE OF THE ONE APPROVING IT FOR RETURN TO SERVICE

### ***SAMPLE MAINTENANCE ENTRY***

N1234A                      AIRFRAME LOG                      P. 112  
3/15/04 TACH: 2272.8 REPLACED LEFT BRAKE  
ASSEMBLY, "O"RING AND BRAKE PADS IN  
ACCORDANCE WITH SKYFLASH PARTS AND  
MAINTENANCE MANUAL, CHAPTER 12, PAGE 67,  
REVISION 41, ALL WORK PERFORMED BY JOE  
KLEIN. OPERATIONAL CHECK OK.

PATRICK POTEEN(SIG)  
A&P 1809539

## MINEFIELD AVOIDANCE



### ***HEY! HAVE YOU NOTICED!***

- THE RULE DOES NOT GIVE A FORMAL APPROVAL FOR RETURN TO SERVICE STATEMENT.
- .BUT FAR 43.9 (A)(4) SAYS THE SIGNATURE OF THE CERTIFICATED TECHNICIAN CONSTITUTES THE APPROVAL FOR RETURN TO SERVICE.



### ***INSPECTION ENTRY:***

***REF: 43.11***

- TYPE OF INSPECTION AND A BRIEF DESCRIPTION.
- TOTAL TIME IN SERVICE.
- DATE.
- SIGNATURE AND CERTIFICATE NUMBER OF THE INDIVIDUAL WHO APPROVES OR DISAPPROVES THE AIRCRAFT OR PART.



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## MINEFIELD AVOIDANCE

### ***SAMPLE INSPECTION ENTRY.***

***REF: 43.11***

3/15/04 T/T TACH 2272.3

**"I CERTIFY" THAT THIS "AIRCRAFT" HAS  
BEEN INSPECTED IN ACCORDANCE WITH  
AN ANNUAL INSPECTION AND  
DETERMINE TO BE IN AN "AIRWORTHY  
CONDITION."**

**PATRICK POTEEN (SIG)  
A&P1809539 IA**

### ***ANNUAL INSPECTION MINEFIELDS***

- IA MUST **"PERFORM"** THE ANNUAL INSPECTION ----- CANNOT DELEGATE THE INSPECTION TO AN A&P. (sec: 65.95)
- NOT REVIEWING AND RECORDING THE **"DEFERRED"** ITEMS IN ACCORDANCE WITH SECTION 91.213, INOPERATIVE INSTRUMENTS AND EQUIPMENT.



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## MINEFIELD AVOIDANCE

### *HERE IS PERHAPS THE DEADLIEST MINEFIELD OF ALL.*

- FAR 21.50 TALKS ABOUT MANUALS FOR CONTINUING AIRWORTHINESS. IF AN STC WAS APPLIED FOR AFTER JAN. 28, 1981 IT SHOULD HAVE A MANUAL FOR CONTINUING AIRWORTHINESS .

BUT WHAT DOES IT MEAN?

### *FAR 21.50 MINEFIELD*

- THIS MEANS THAT IF YOU DO NOT USE THE STC MANUAL FOR CONTINUING AIRWORTHINESS YOU HAVE NOT PERFORMED A VALID INSPECTION BECAUSE THE STC INSTALLATION WAS NOT PROPERLY INSPECTED BUT YOUR SIGNATURE SAYS THAT YOU DID !

## MINEFIELD AVOIDANCE



### ***HOW LONG WILL THE FAA HOLD YOU RESPONSIBLE ?***

**WILL YOU EVER SEE YOUR  
FRIENDS AND FAMILY  
AGAIN ?**



### **HOW LONG DOES THE FAA HOLD YOU RESPONSIBLE?**

- **YOU ARE HELD RESPONSIBLE FOR THE  
MAINTENANCE PERFORMED UNTIL THE  
WORK IS:**
- **DAMAGED**
- **ALTERED**
- **REMOVED OR EXCEEDED ITS LIFE LIMIT**
- **REPAIRED OR INSPECTED**



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## MINEFIELD AVOIDANCE



### ***HOW LONG WILL THE FAA HOLD YOU RESPONSIBLE FOR INSPECTIONS ?***

- **THE MECHANIC/1A IS HELD RESPONSIBLE UNTIL:**

**"THE INK ON THE INSPECTION RECORD KEEPING ENTRY DRIES."**



### ***SOUNDS TOO GOOD TO BE TRUE.***

**WHEN YOU DECLARE THE AIRCRAFT  
"AIRWORTHY."**

**FAA KNOWS THAT THERE IS NO WAY  
THAT AN A&P/IA CAN ENSURE THE  
AIRWORTHINESS OF THE AIRCRAFT  
ONCE IT LEFT HIS OR HER CARE.**





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## MINEFIELD AVOIDANCE



### ***WHAT'S THE CATCH?***

- WHEN YOU DO AN INSPECTION YOU BUY THE PAST---NOT THE FUTURE. WHAT YOU ARE SAYING THAT EVERY INSPECTION, REPAIR, ALTERATION, AD, FIELD APPROVAL, STC THAT HAS BEEN DONE TO THE AIRCRAFT SINCE DAY ONE, IS "AIRWORTHY"



### ***SIGNING OFF AN UNAIRWORTHY AIRCRAFT***

- MECHANICS MAKE YES /NO DECISIONS.
- THE AIRCRAFT IS AIRWORTHY OR NOT.
- A LOG BOOK ENTRY MUST BE MADE IF YOU INSPECTED THE AIRCRAFT AND FOUND IT UN-AIRWORTHY. (REF: 43.11)



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## MINEFIELD AVOIDANCE

### ***SAMPLE UNAIRWORTHY ENTRY (REF: 43.11(a)(5))***

3/15/00 T/T: 3978.2 HOURS: I CERTIFY THAT  
THIS AIRCRAFT HAS BEEN INSPECTED IN  
ACCORDANCE WITH AN ANNUAL INSPECTION  
AND A LIST OF DISCREPANCIES AND  
UNAIRWORTHY ITEMS DATED 3/15/99 HAS  
BEEN PROVIDED TO THE OWNER.

PATRICK POTEEN  
A&P1809539 IA

### ***MINEFIELD #6***

**PERFORMANCE  
STANDARDS**



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## MINEFIELD AVOIDANCE

### ***WHAT STANDARDS MUST WE MEET ?***

- THERE IS ONLY ONE REGULATION THAT SETS THE “CORE STANDARDS” OF OUR PROFESSION.

#### **SECTION 43.13 PERFORMANCE RULES**

### ***SEC: 43.13 HAS THREE PARAGRAPHS***

**FIRST PARA: MECHANICS SHALL USE THE METHODS, TECHNIQUES, AND PRACTICES IN THE “CURRENT” MFG INSTRUCTIONS AND USE TOOLS, EQUIPMENT AND TEST APPARATUS IN ACCORDANCE WITH ACCEPTED INDUSTRY PRACTICES.**

## MINEFIELD AVOIDANCE



### ***SEC: 43.13 SECOND PARAGRAPH***

- EACH PERSON PERFORMING MAINTENANCE SHALL DO THE WORK IN SUCH A MANNER AND SUCH A QUALITY THAT THE CONDITION OF THE PART WORKED ON WILL BE AT LEAST EQUAL TO ITS ORIGINAL OR PROPERLY ALTERED CONDITION.



### ***SEC: 43.13 THIRD PARAGRAPH***

- PART 121, 127, 129, AND 135 OPERATORS  
MAINTENANCE MANUALS CONSTITUTE AN ACCEPTABLE MEANS OF COMPLIANCE WITH THIS RULE.



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## MINEFIELD AVOIDANCE

### ***A MAINTENANCE RELEASE HAS TWO PARTS.***

- A SIGNED COPY OF THE WORK ORDER SHOWING THE DATA USED.
- APPROVAL FOR RETURN TO SERVICE STATEMENT.
- CAN BE ON ONE DOCUMENT OR ON TWO. (E.G. A TAG AND A WORK ORDER)

### ***AN AIRWORTHINESS RELEASE OR A 8130.3 TAG IS NOT:***

- AN APPROVAL TO INSTALL THE PART ON THE AIRCRAFT.
- PART ELIGIBILITY MUST BE DETERMINED BY THE MECHANIC.



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## MINEFIELD AVOIDANCE



### ***MINEFIELD #7***

#### **APPROVED PARTS ?**



***PUT A BAD PART ON A GOOD  
AIRPLANE AND IT IS THE END OF A  
PROMISING CAREER.***

- **THERE ARE THREE KINDS OF AIRCRAFT PARTS:**
- **APPROVED---TSO, PMA, PHA, ETC.**
- **UNAPPROVED-----NO PAPER WORK**
- **COUNTERFEIT----FRAUD**



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## MINEFIELD AVOIDANCE



### ***WHAT KIND OF PARTS CAN I PUT ON AN AIRCRAFT?***

#### **SECTION: 21.303 SAYS:**

- PMA PARTS.
- PRODUCTION HOLDER APPROVAL PARTS.
- TSO PARTS.
- OWNER PRODUCED PARTS.
- STANDARD PARTS & USED PARTS



### ***HOW ARE THESE PARTS IDENTIFIED ?***

***REF: AC 20-62D***

## MINEFIELD AVOIDANCE



### ***HOW ARE PMA PARTS IDENTIFIED ?***

- THE NAME OF THE MFG.
- TRADEMARK OR SYMBOL.
- PART NUMBER.
- NAME AND MODEL DESIGNATION FOR EACH CERTIFICATED PART THE PMA PART IS ELIGIBLE FOR INSTALLATION.



### ***HOW ARE PRODUCTION HOLDER APPROVED (PHA) PARTS IDENTIFIED ?***

- DATA PLATE.
- PART NUMBER OR SERIAL NUMBER.
- PHA INVOICE.
- LETTER OF DIRECT SHIP AUTHORITY FROM PHA TO VENDER THAT ACCOMPANIES THE PART.





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## MINEFIELD AVOIDANCE

### ***HOW ARE TSO PARTS IDENTIFIED ?***

- NAME AND ADDRESS OF THE MFG.
- NAME, TYPE, PART NUMBER OR MODEL.
- SERIAL NUMBER OR DATE OF MFG. OR BOTH.
- APPLICABLE TSO NUMBER

### ***OWNER PRODUCED PARTS OVERVIEW:***

- MUST HAVE APPROVED DATA TO BUILD THE PART-----FIELD APPROVAL?
- OWNER MUST TAKE PART IN THE PROCESS---INSPECTOR--HELPER--ETC.
- YES THE MECHANIC CAN WORK AS THE OWNER'S AGENT AND HELP BUILD THE PART.



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## MINEFIELD AVOIDANCE

### ***OWNER PRODUCED PARTS IDENTIFICATION***

- OWNER MUST SIGN THE LOG BOOK STATING THAT THE PART IS OWNER PRODUCED, WHAT DATA WAS USED TO MAKE THE PART, AND SIGN A STATEMENT THAT IT IS AIRWORTHY.

### ***OWNER PRODUCED PARTS INSTALLATION.***

- THE PART CAN BE INSTALLED BY AN A&P MECHANIC WHO IS RESPONSIBLE ONLY FOR THE INSTALLATION, NOT FOR THE MANUFACTURER OF THE PART.
- IF THE AIRCRAFT IS SOLD. THE AIRWORTHY PART STAYS ON THE AIRCRAFT. IT DOES NOT HAVE TO BE REMOVED.



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## MINEFIELD AVOIDANCE

### ***INSTALLING FOREIGN MADE PARTS***

- 8130.3 TAG FROM A FAA FOREIGN PART 145 REPAIR STATION.
- JAA FORM 1 TAG.
- NEW PARTS FROM COUNTRIES WITH A BILATERAL AIRWORTHINESS AGREEMENT WITH THE COUNTRY OF MANUFACTURE.

### ***HOW ARE STANDARD PARTS IDENTIFIED ?***

- STANDARD PARTS ARE USUALLY TOO SMALL OR IMPRACTICAL TO MARK..
- HOWEVER THE TAG, BAG, OR BOX THEY ARE KEPT IN SHOULD SHOW THE MIL SPEC. PMA, OR TSO NUMBER, PART OR INVOICE NUMBER THAT IDENTIFIES WHERE THAT PART CAME FROM.



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## MINEFIELD AVOIDANCE

### ***HOW ARE REPAIRED PARTS IDENTIFIED ?***

- MAINTENANCE RELEASE FROM A REPAIR STATION.
- FAA FORM 337.
- 8130-3 AIRWORTHINESS TAG.  
DATA USED FOR THE REPAIR.  
RETURN TO SERVICE STATEMENT FROM  
A FAA CERTIFICATED PERSON.

### ***USED PARTS CHECK LIST***

- AD STATUS?
- SERVICE BULLETINS STATUS?
- LIFE LIMIT?
- SHELF LIFE?
- RETURN TO SERVICE DATE?
- IMPORT /EXPORT DOCUMENTATION?



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## MINEFIELD AVOIDANCE

### ***USED PART CHECKLIST***

- **CONDITION AND PRESERVATION.**
- **NAME OF PERSON WHO REMOVED THE PART.**
- **"N" NUMBER AND SERIAL NUMBER OF THE AIRCRAFT IT CAME FROM, IF POSSIBLE.**
- **TOTAL TIME OF THE PART IF POSSIBLE.**

### ***PARTS THAT YOU SHOULD BE WARY OF.***

- **SURPLUS PARTS/LIKE NEW CONDITION**
- **MILITARY PARTS.**
- **PUBLIC AIRCRAFT PARTS.**
- **PARTS INVOLVED IN ACCIDENTS. (FIRE, SUDDEN STOPPAGE, HARD LANDING)**
- **SALVAGED OR "AS IS" CONDITION.**



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## MINEFIELD AVOIDANCE

### ***PARTS THAT YOU SHOULD BE WARY OF:***

- THE TOO GOOD TO BE TRUE CHEAP PART IS  
USUALLY :  
HAS NO PAPERWORK OR IS  
A MANUFACTURER'S REJECT OR IS  
A COUNTERFEIT OR IT IS  
UNAIRWORTHY OR IT  
IS STOLEN.

### ***TO STOP BAD PARTS FROM GOING ON GOOD AIRCRAFT.***

- KNOW YOUR SUPPLIERS.
- IF YOU THINK YOU HAVE A BAD  
PART: FILL OUT A FAA FORM 8120-  
11 ( SEND TO THE LOCAL FSDO) OR  
CALL FAA SAFETY HOTLINE:  
1-800-255-1111

## MINEFIELD AVOIDANCE



### ***MINEFIELD #8***

---

#### **PROFESSIONALISM**



#### ***A PROFESSIONAL IS:***


---

- **TRUSTED.**
- **HIGHLY TRAINED.**
- **RECURRENT TRAINING.**
- **MEETS HIGH ETHICAL AND PERFORMANCE STANDARDS.**
- **RECOGNIZED BY HIS/HER PEERS.**



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## MINEFIELD AVOIDANCE



***A PROFESSIONAL  
MAINTENANCE WORK  
FORCE IS THE BACKBONE,  
MUSCLE AND HEART OF  
THE AVIATION INDUSTRY***



***SADLY, THERE ARE PEOPLE  
WHO WILL ASK YOU TO SELL  
YOUR PROFESSIONAL AND  
ETHICAL VALUES.***



## MINEFIELD AVOIDANCE



### ***IT WILL HAPPEN LIKE THIS:***

- HEY JOE, HOW BOUT SIGNING OFF THE AD, THE BOSS HAS TO GO TO SEATTLE AND YOU CAN TAKE CARE OF IT WHEN HE GETS BACK.-----OR:
- FRED, CLOSE UP THE ENGINE, SIGN OFF THE REPAIR, THE LEAK WILL BE FIXED AT THE NEXT LINE STATION.



### ***IT WILL HAPPEN LIKE THIS:***

- MARGE, PUT ON THE PART ANYWAY, THE PAPERWORK IS AROUND HERE SOME WHERE.
- LEO, FUDGE THE INSPECTION TIME BY ABOUT 25 HOURS TO KEEP THE FEDS FROM KNOWING THAT WE RAN OVER.



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## MINEFIELD AVOIDANCE

***IF YOU DON'T SELL YOUR  
PROFESSIONAL VALUES YOU  
WILL BE :***

- CALLED A TROUBLE-MAKER
- CALLED A FOOL
- CALLED " NOT A TEAM PLAYER"
- CALLED "SCARED OF THE FEDS"
- OR YOU COULD BE: "FIRED."

***IF YOU DO NOT SELL OUT***

- **WOULD BE STILL BE A  
PROFESSIONAL AND AN  
ASSET TO OUR INDUSTRY.**
- **AND YOU WOULD SLEEP  
BETTER AT NIGHT.**



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## MINEFIELD AVOIDANCE



### ***IF YOU DID SELL OUT AND GOT CAUGHT:***

- **YOU WOULD BE IN VIOLATION OF:  
FAR 43, SECTION 43.12  
MAINTENANCE RECORDS:  
FALSIFICATION, REPRODUCTION  
AND ALTERATION,**



### ***IF FOUND GUILTY:***

- **DEPENDING ON THE SERIOUSNESS  
OF THE VIOLATION YOUR A&P  
MECHANIC CERTIFICATE COULD BE  
SUSPENDED OR REVOKED OR YOU  
COULD BE FINED, OR BOTH,-----  
---OR YOU COULD GO TO JAIL UNDER  
CIVIL LAW.**



Training, Consulting, Documenting  
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## MINEFIELD AVOIDANCE



***SINCE AVIATION SAFETY DEPENDS  
ON THE ACCURACY OF THE  
PREVIOUS MECHANIC'S LOG BOOK  
ENTRY, THE FAA TAKES A VERY  
DIM VIEW OF A MECHANIC WHO  
AUTOGRAPHS A LIE.***



### ***SUGGESTIONS:***

- LEARN NEW SKILLS
- GET RECURRENT TRAINING
- PARTICIPATE IN THE FAA AWARDS PROGRAM.
- LOOK INTO ENMU-R 2 YEAR ONLINE TRAINING.



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## MINEFIELD AVOIDANCE



### ***SUMMARY: THIS COURSE WAS DESIGNED TO:***

- **MAKE MECHANICS AWARE OF REGULATORY MINEFIELDS.**
- **INCREASE COMPLIANCE WITH THE FAR.**
- **INCREASE PROFESSIONALISM.**

**HOW DID WE DO?**