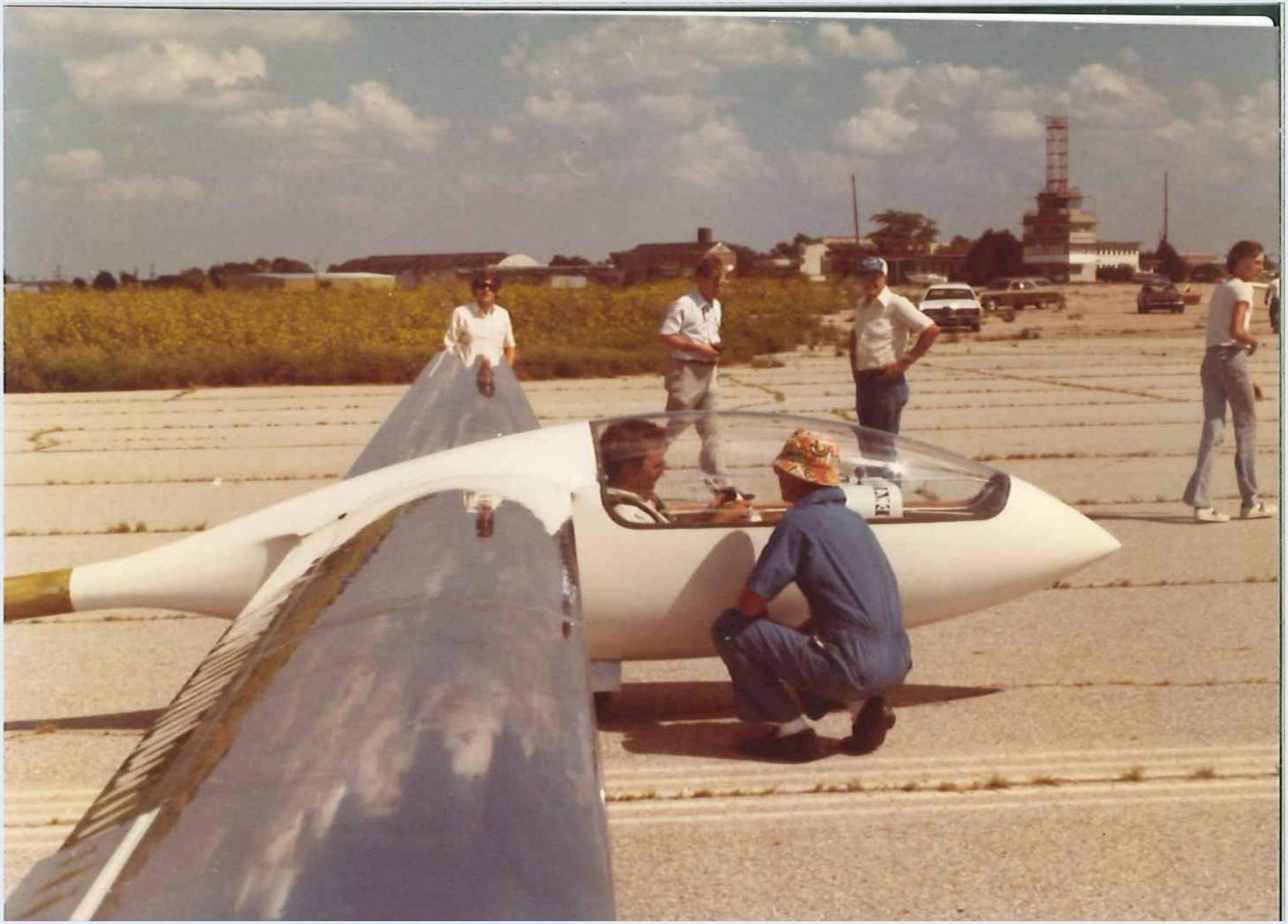
10/5/2001



N6699
08/07/2010 10:28

SOME OLD, SOME NEW

- ISSUES WITH OLDER AIRPLANES
  - P51
  - ERCOUPE
- ISSUES WITH NEWER DESIGNS
  - WAIEX
  - ZODIAC 601XL ENGINE

P51 RENO

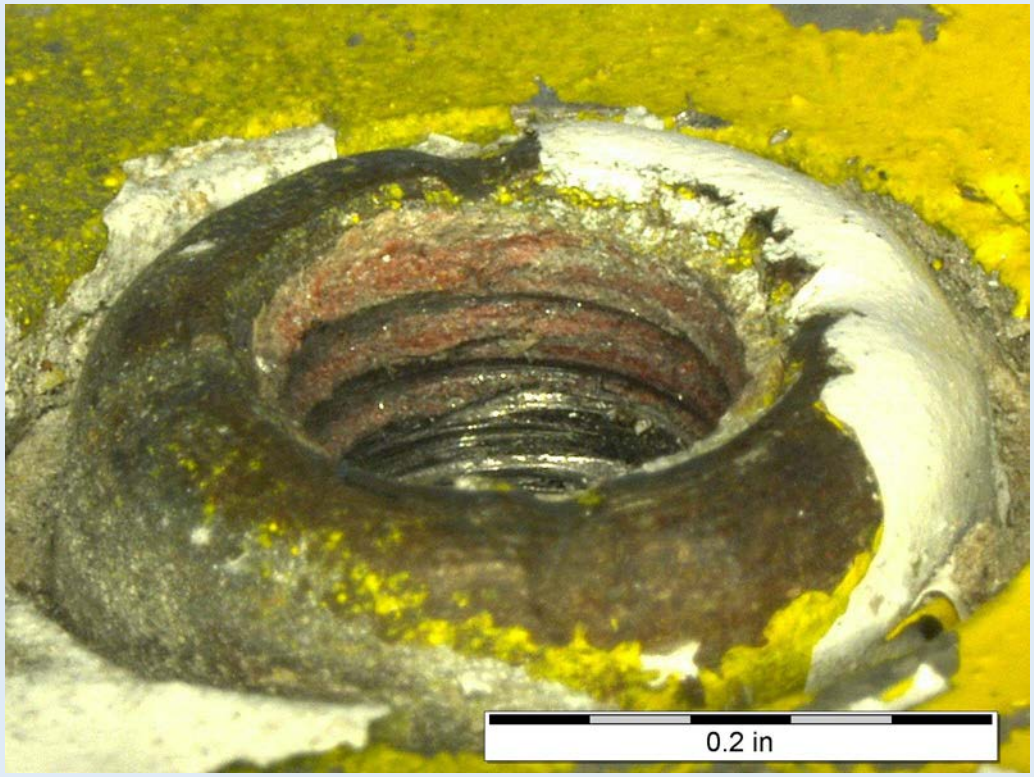
THE GALLOPING GHOST
PACKARD
177
NX79111
SOHIO
HCC
Air Capital Insurance

127
NX79111

N-53

08/08/2013 15:27

08/08/2013 15:27


0.2 in

0.2 in

ERCOUPE WHEEL

GOODYEAR AIRCRAFT
MADE IN U.S.A.
5.00-4
6 PLY RATING
TYPE III
05/29/2013 12:39

05/29/2013 13:19

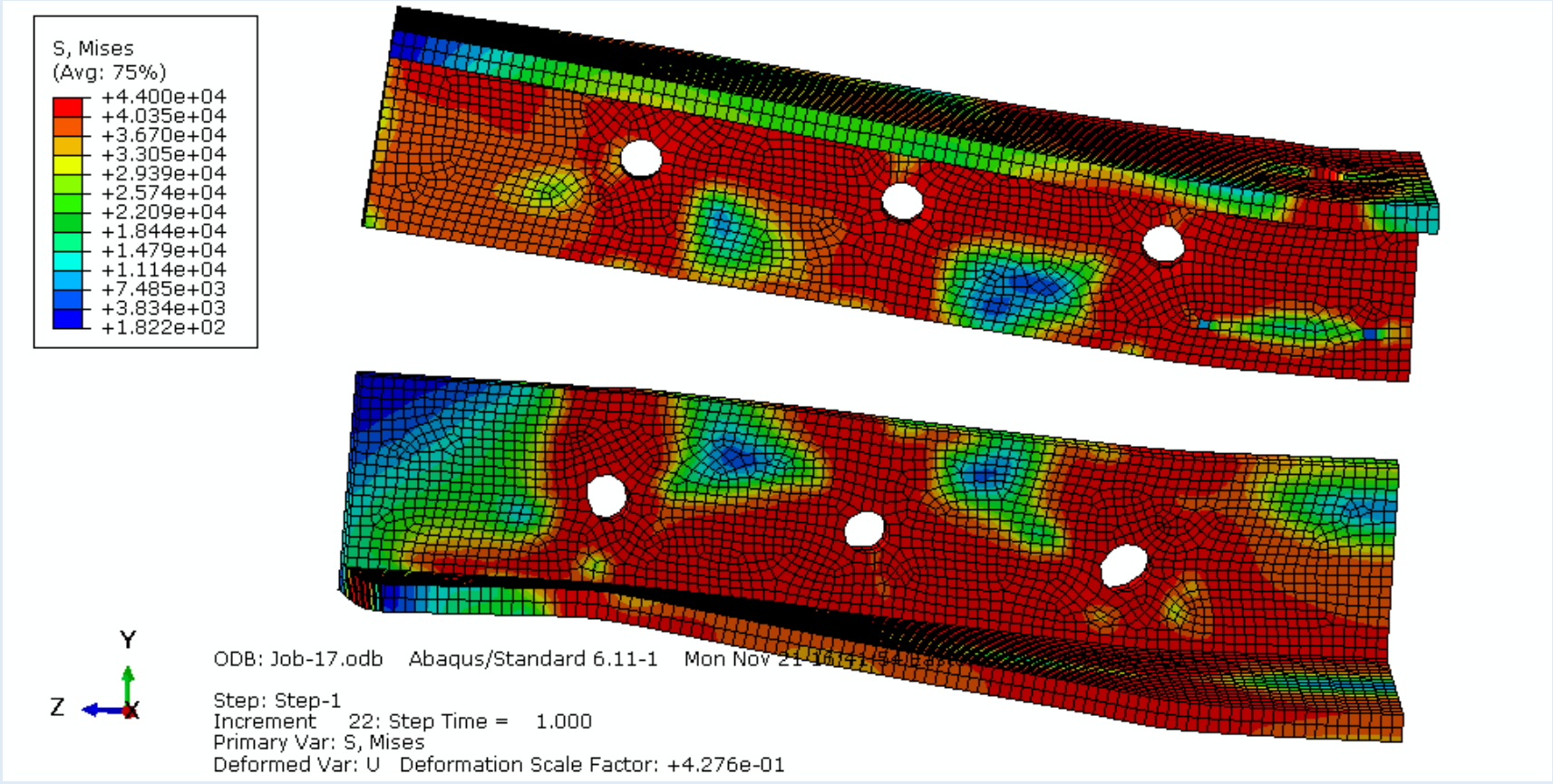
INCHES
1
2
3
4
5
6
7

WAIEX

NO STEP

11/03/2011 14:31

11/03/2011 10:27


S, Mises
(Avg: 75%)
+4.400e+04
+4.035e+04
+3.670e+04
+3.305e+04
+2.939e+04
+2.574e+04
+2.209e+04
+1.844e+04
+1.479e+04
+1.114e+04
+7.485e+03
+3.834e+03
+1.822e+02
Y
Z
X
ODB: Job-17.odb Abaqus/Standard 6.11-1
Step: Step-1
Increment 22: Step Time = 1.000
Primary Var: S, Mises
Deformed Var: U Deformation Scale Factor: +4.276e-01

WAIEX AT WASHINGTON, GA 10-Oct-12 ERA12FA108 82135

V TAIL LOADS AT THE FRONT SPAR

		RADCONV	57.29577	((TED + OR ANU -))			
DIHEDRAL DEG	35	ALPHA DEG (+ANU)	10	STICK AFT	5	LEFT	-5 NEG IS ANU
DIHEDRAL RAD	0.61086534	ALPHA RAD	0.174532954			RIGHT	-5 NEG IS ANU
STAB AREA (EA)	10.98			((R PEDAL+, GIVES +YAW OR - BETA))			
RVATOR AREA (EA)	5.49	YAW DEG (+ANR)	-6	PUSH R RUD PEDAL	10	LEFT	-10 NEG IS ANR OR + BETA
		BETA RAD	-0.104719773			RIGHT	10 POS IS ANR OR + BETA

SPEED MPH	120		
SPEED FPS	175.9992	CLA /DEG	0.09
Q	36.83012918	CLDE /DEG	0.04

LEFT STAB FORCE = Q*S*CLA * ALPHA LEFT + CLDE *LEFT RUDDRVATOR)

RIGHT STAB FORCE = Q*S*CLA * ALPHA RIGHT + CLDE *RIGHT RUDDRVATOR)

ALPHA LEFT = ALPHA FUS * COS DIHEDRAL - BETA FUS * SIN DIHEDRAL

ALPHA RIGHT = ALPHA FUS * COS DIHEDRAL + BETA FUS * SIN DIHEDRAL

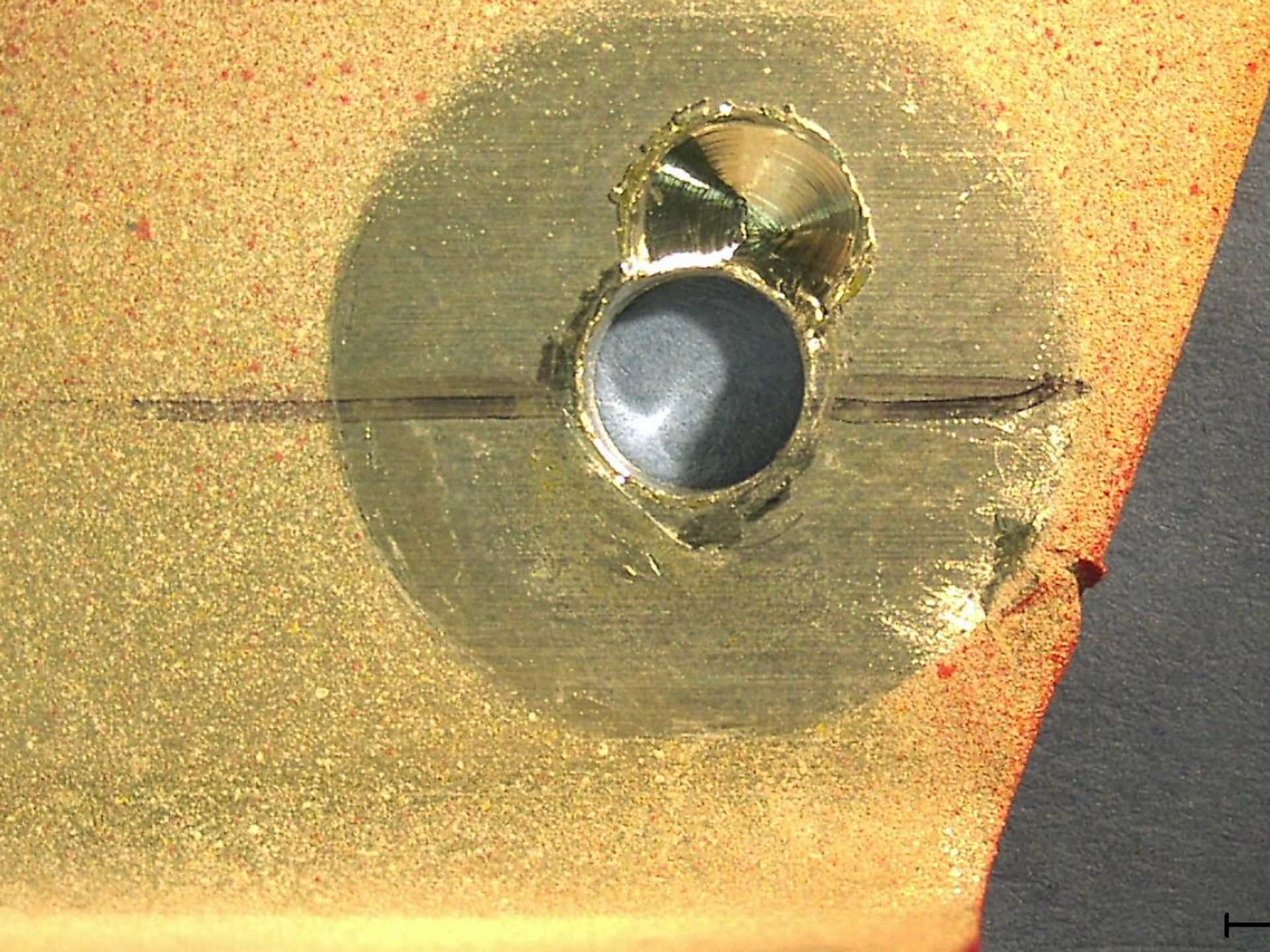
ALPHA LEFT =	4.8
ALPHA RIGHT =	11.6

LEFT STAB FORCE	-70
RIGHT STAB FORCE	504

		forces +up	
		left stab	right stab
ALPHA	10	298	298
STICK AFT	5	217	217
YAW LEFT	-6	92	343
PUSH RIGHT RUDDER	10	-70	504

AFC
AFC
11/03/2011 10:20

AFC
12/06/2012 13:10



11/03/2011 10:54

ZODIAC 601XL

HIGHWAY PATROL—DO NOT CROSS
HIGHWAY PATROL—DO NOT CROSS
STOP

Copyright © and (P) 1988–2009 Microsoft Corporation and/or its suppliers. All rights reserved.

04/10/2012 16:40