



# Aircraft Combat Survivability Short Course

## April 11-13, 2023



Pratt Whitney  
17900 Bee Line Highway, Jupiter, FL 33478

### Tuesday, April 11, 2023

Lectures in red are at Classified SECRET//NOFORN Level

		Instructor	Time
	<b>Course Check-in</b>		0700 – 0800
1	Welcome to the Short Course & Admin & Security	Prof. Christopher Adams (NPS)	0800 – 0810
2	Welcome to Pratt & Whitney	Ms. Mary Anne Cannon, VP West Palm Facility	0810 – 0820
3	Introduction to Aircraft Combat Survivability	Prof. Christopher Adams	0820 – 0930
	<b>Break</b>		0930 – 0945
4	Current Threats Intel Brief, SAF Threats & Analysis	CW4 Rich Barnett (ASDAT/JCAT)	0945 – 1030
	<b>Break</b>		1030 – 1045
5	Kill Chain; 1v1, Mission & Campaign Survivability; System Safety	Prof. Christopher Adams	1045 – 1130
	<b>Lunch / Threat Effects Video</b>		1130 – 1215
6	Live Fire Test and Evaluation/Joint Live Fire	Dr. Greg Ruderman (OSD/DOT&E Live Fire)	1215 – 1245
7	Survivability Enhancements	Prof. Christopher Adams	1245 – 1330
	<b>Break</b>		1330 – 1345
8	JCAT / ASDAT Brief & Video	CW4 Rich Barnett (ASDAT/JCAT)	1345 – 1430
9	Analysis of Aircraft Combat Data	Ken Zabel (TETRA)	1430 – 1530
	<b>Break</b>		1530 – 1545
10	Integrated Survivability Assessment, Survivability Testing, and Trade Studies	Dr. Mark Couch (IDA)	1545 – 1630
11	Problem Session and Q&A	Prof. Christopher Adams	1630 – 1645

### Wednesday, April 12, 2023

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		Instructor	Time
	<b>Daily Check-in</b>		0700 – 0800
12	Review Day One, Problem Session and Q&A	Prof. Christopher Adams (NPS)	0800 – 0805
13	Aircraft Cyber Combat Survivability (ACCS)	Dr. Bill Bryant "Data"	0805 – 0930
	<b>Break</b>		0930 – 0945
14	Susceptibility Overview, Threat Operations, Acoustics, and Visual Signatures, part 1	Dr. Rich Huffman (IDA)	0945 – 1030
	<b>Break</b>		1030 – 1045
	Susceptibility Overview, Threat Operations, Acoustics, and Visual Signatures, part 2	Dr. Rich Huffman (IDA)	1045 – 1130
	<b>Lunch / Threat Effects Video</b>		1130 – 1215
15	Susceptibility Radar Signature, Electronic Warfare	Dr. Rich Huffman (IDA)	1215 – 1330
	<b>Break</b>		1330 – 1345
16	Susceptibility IR Signature, IR camera demo	Lt Col David Liu (Stand-in Attack Weapon (SiAW) Materiel Leader), (former AFIT Professor)	1345 – 1530
	<b>Break</b>		1530 – 1545
17	Infrared Engine Signatures, Engine Design	Thao Nguyen and Adam Rosenkrantz (P&W)	1545 – 1630
18	Susceptibility Discussion and Q&A	Adams, Couch, Huffman, Liu	1630 – 1645

## Thursday, April 13, 2023

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		Instructor	Time
	<b>Daily Check-in</b>		0700 – 0800
19	Review Day Two (Problem Session)	Prof. Christopher Adams	0800 – 0805
20	Vulnerability Overview, Threat Effects, Damage Processes	Lt Col David Liu	0805 – 0845
21	Critical Components and Vulnerability Assessment	Prof. Christopher Adams	0845 – 0930
	<b>Break</b>		0930 – 0945
22	Fire Protection Systems	Mr. Mike Cosgrove (Naval Air Warfare Center)	0945 – 1030
	<b>Break</b>		1030 – 1045
23	Vulnerability Reduction Technology	Dr. Rich Huffman, Lt Col Liu	1045 – 1130
24	<b>Army Rotary Wing Tactics</b>	CW4 Rich Barnett (ASDAT/JCAT)	1130 – 1215
	<b>Lunch</b>		1215 – 1300
XX	<b>Pratt &amp; Whitney Tour</b>	Facility Tour	1300 – 1500
	<b>Break</b>		1500 – 1515
25	Force Protection and Recoverability	Dr. Mark Couch	1515 – 1545
26	Course Review (Surveys & Certificates)	Prof. Christopher Adams	1545 – 1600
27	Course Wrap Up	Adams, Couch, Huffman, and Lui	1600 – 1615
	<b>FINEX</b>		<b>1630</b>