

# Aircraft Combat Survivability Short Course

## May 24-26, 2022

Institute for Defense Analyses  
730 East Glebe Road, Alexandria, Virginia 22305



## Agenda

### Tuesday, May 24, 2022

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 – 0815
2	Keynote/Welcomes	Gen Norton “Norty” Schwartz (IDA)	0815 – 0830
3	Introduction to Aircraft Combat Survivability	Prof. Christopher Adams	0830 – 0945
	<b>Break</b>		0945 – 1000
4	Integrated Survivability Assessment, Survivability Testing, and Trade Studies	Dr. Mark Couch (IDA)	1000 – 1045
5	Kill Chain; 1v1, Mission & Campaign Survivability; System Safety	Prof. Christopher Adams	1045 – 1130
	<b>Lunch / Threat Effects Video</b>		1130 – 1215
6	Survivability Enhancements	Prof. Christopher Adams	1215 – 1300
7	Live Fire Test and Evaluation/Joint Live Fire	Dr. Greg Ruderman (OSD/DOT&E Live Fire)	1300 – 1330
	<b>Break</b>		1330 – 1345
8	JCAT / ASDAT Brief & Video	CW4 Rich Barnett (ASDAT/JCAT)	1345 – 1430
9	Analysis of Aircraft Combat Data	Mr. Jim Rhoads (IDA)	1430 – 1530
	<b>Break</b>		1530 – 1545
10	Current Threats Intel Brief, SAF Threats & Analysis	Ms. Sarah Roth (ASDAT/JCAT)	1545 – 1630
11	Problem Session and Q&A	Prof. Christopher Adams	1630 – 1645

### Wednesday, May 25, 2022

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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	Dr. Rich Huffman (IDA)	0945 – 1130
	<b>Lunch / Threat Effects Video</b>		1130 – 1215
15	Susceptibility Radar Signature, Electronic Warfare	Dr. Rich Huffman (IDA)	1215 – 1400
	<b>Break</b>		1400 – 1415
16	Susceptibility IR Signature, IR camera demo	Lt Col David Liu (Munitions S&T Program Element Monitor (PEM), (former AFIT Professor)	1415 – 1530
	<b>Break</b>		1530 – 1545
17	Infrared Engine Signatures	Lt Col David Liu	1545 – 1630
18	Susceptibility Discussion and Q&A	Adams, Couch, Huffman, Liu	1630 – 1645

3/8/2022

## Thursday, May 26, 2022

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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	Dr. Mark Couch (IDA)	0805 – 0900
21	Critical Components and Vulnerability Assessment	Prof. Christopher Adams	0900 – 0945
	<b>Break</b>		0945 – 1000
22	Vulnerability Reduction Technology	Dr. Rich Huffman, Lt Col Liu	1000 – 1045
23	Force Protection and Recoverability	Dr. Mark Couch	1045 – 1130
	<b>Lunch</b>		1130 – 1215
24	<b>Army Rotary Wing Tactics</b>	CW4 Rich Barnett (ASDAT/JCAT)	1215 – 1300
25	<b>Navy Rotary Wing Tactics</b>	LT Stephen “Skinny” Poppe (HSMWP Survivability PM)	1300 – 1345
	<b>Break</b>		1345 – 1400
26	<b>Fighter Aspects of Survivability</b>	TBD	1400 – 1445
27	<b>A/C Survivability Design &amp; Optimization Q&amp;A Basic Design Process</b>	Prof. Christopher Adams, Dr. Mark Couch, Dr. Rich Huffman, Lt Col David Liu	1445 – 1530
28	Course Review (Surveys & Certificates)	Prof. Christopher Adams	1530 – 1535
29	Course Wrap Up	Adams, Couch, Huffman, and Lui	1535 - 1545
	<b>FINEX</b>		<b>1600</b>