



# Delkia



# SyntheSys

Defence Systems

## Kurt Anker

15 May 2025

Each party wishes to disclose to and receive from the other certain confidential information in relation to the purpose. In consideration of mutual benefits, the parties have agreed to comply with the terms of this agreement in connection with the use and disclosure of such confidential information



Consultant | TDL SME | Test Engineer

- Retired Master Sergeant RDAF (> 35 years)
- Retired NATO Civilian (March 2023)
- Electronic Engineer | radar, computer, networks, communication, simulation
- System Analyst / programmer | NADGE, CSI, NATO AWACS
- NATO E-3A Component Test SME | TDL & Simulation
- NATO AWACS Test Manager (A3)
- SyntheSys Defence since March 2023
- Now SyntheSys Defence Systems



# Agenda

1



History

2



About Delkia Group

3



Locations

4



SyntheSys Defence Systems

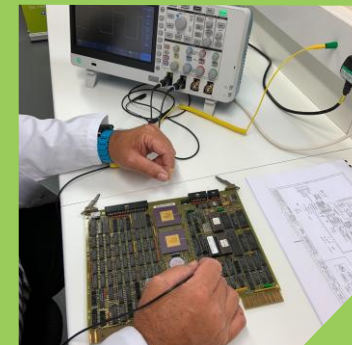




# Serving Defence & Nuclear Sectors

Engineering Design | Systems Integration | R&D |

Technical Consultancy | Capability Management |





Formed in 2013 focusing on Engineering Design, Systems Integration and Technical Consultancy

#### Three current facilities:

- Head Office
  - Westlakes Science & Technology Park
- Delkia Preston
  - Offices & collaboration space
- R&D Lab and Production Unit
  - Egremont, West Cumbria
- Haydock Office
  - Manufacturing and Office
- Whitby
  - SDS Head Office



Circa 130 employees with a vision to grow to over 300 by 2027

Specialist systems integrator operating throughout the UK and Internationally for mission critical and highly regulated sectors

#### As safety related specialists Delkia offers:

- Digital engineering
- Engineering design
- Systems consultancy
- Systems integration
- Build-to-print
- Control panel build
- Complex systems support



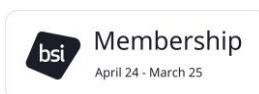
Key mission is to enable a safer and more resilient world through the provision of technical and technological solutions

#### Three Key Markets:

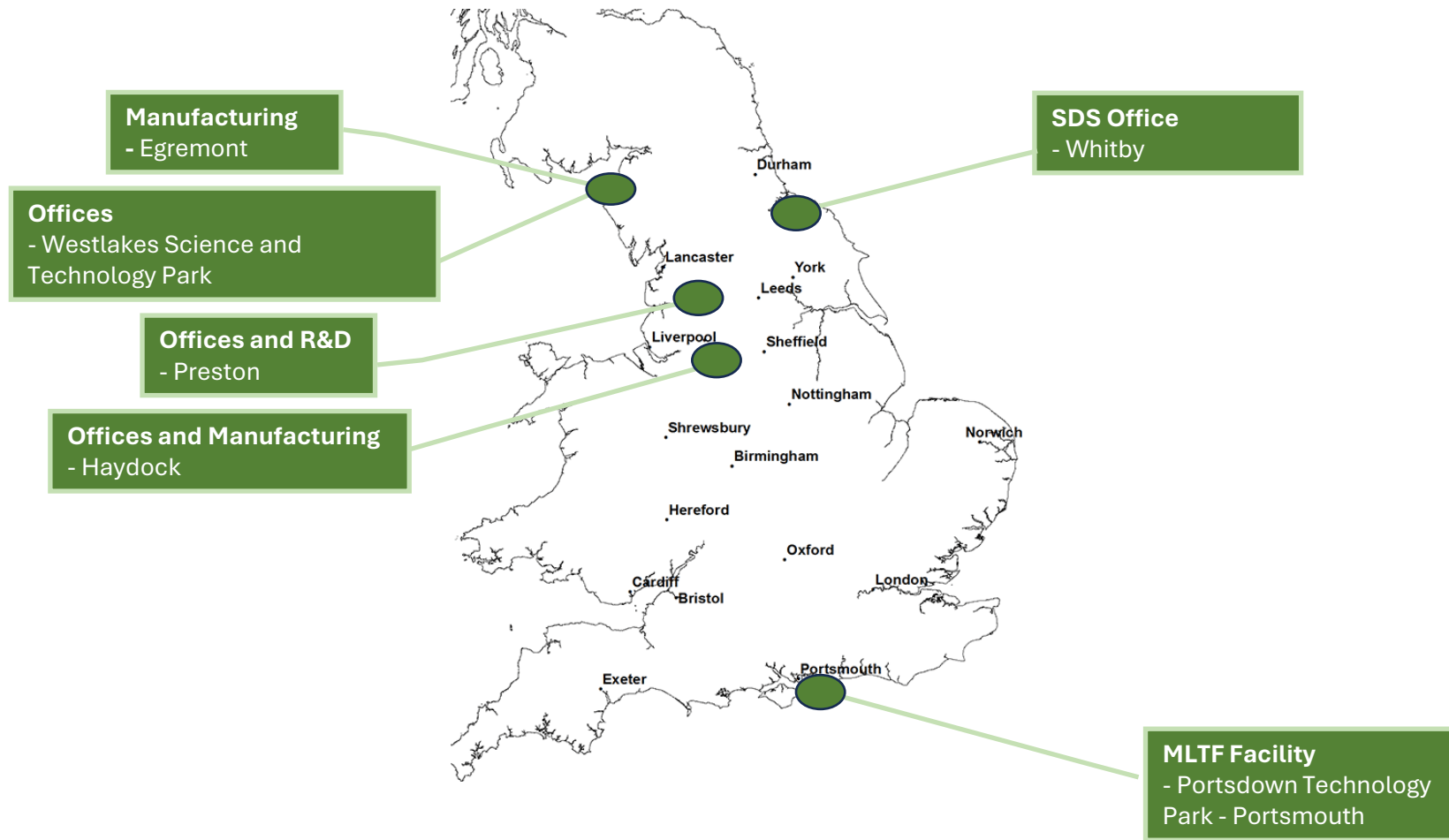
1. Nuclear
2. Defence
3. Tactical Data Links

#### Six Key Capability Areas:

1. Systems engineering
2. Software development
3. Electronics development
4. Power systems
5. Industrial automation & operational technology
6. Training



# Locations – 2025





# Who are we?

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- The company SyntheSys has existed for over 30 years
- Taken over by Delkia in 2024
- Remain SyntheSys, although now called SyntheSys Defence Systems (SDS)
- Working closely together with Delkia experts
- Customers from both government and industry, UK and global
- Our consultants are experts within their fields – operationally and technically
- All consultants have hands-on experience from exercises and real missions





## Mark Hudspeth

Project management  
TDL system integration  
IO test specialist , simulated and real-time  
Tools: MLTF, TactX, Spirit

## Roland Kemp

Trainer  
JREAP and MIDS specialist  
TDL SME & Link 16 Manager  
Tools: JRE specialist

## Steve Arliss

TDL expert  
IO test specialist , simulated and real-time  
SRS / PRS  
Software development  
Tools: MLTF, TactX, Spirit, Doors

## Kurt Anker

Software engineer, C2 real-time systems  
IO test specialist, simulated and real-time  
SRS/PRS  
TDL and IFF specialist  
NATO working experience  
Tools: NATO tools from NCIA, SPAWAR, ASCOT, CSI, TactX, BOSS, Doors



## Clive Poole

SDS Training Manager  
TDL SME & TDL Manager  
Business Development

## Sam Southwell

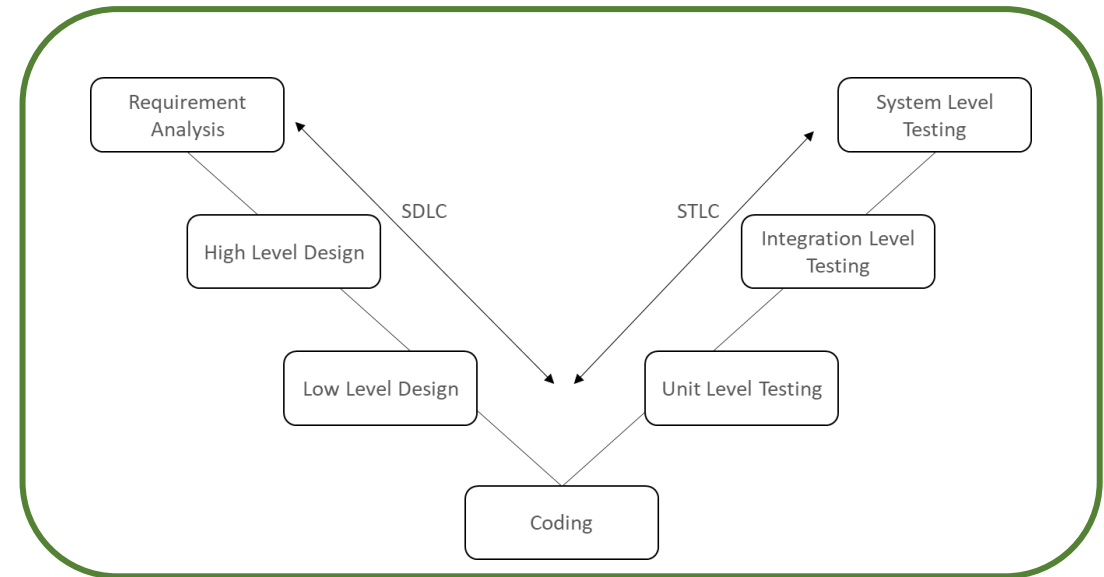
TDL SME and much more  
Avionics SME  
Business Development

# What we offer?

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- Design and develop software and system tests
- Testing as a Service (TaaS)
- Design, develop, and testing of TDL solutions for secure and reliable communication for IO assessment
- TDL system integration
- Training courses for operators and engineers
- Other capabilities – SRS/PRS, simulated training & test

- System testing according to a SRS / PRS
- Requirement Analysis
- Test planning, based on verification requirements
- Test design and implementation
- Test environment setup
- Test execution
- Test result analysis and reporting
- Simulated and/or real-world testing
- Independence from customer
- Follow NATO used standards for software testing, e.g. ISO 29119, DO-178



# Testing as a Service (TaaS)

- TaaS is a sourcing model where third-party handles parts of the testing
- SyntheSys provide the independence from the customer for better testing
- We help and advice customers on test development, preparation and execution of their software and system tests
- We have an in-depth knowledge of software and system testing – interface and regression testing
- What are the key benefits of TaaS?
  - Scalability
  - Cost – workforce, money
  - Access to expertise – consultation company
  - Independency – new eyes on the project, no influence

- TDL Interoperability (IO) Testing
  - Same procedures as for software/system testing
  - using real-world equipment
    - in a simulated environment
    - in real life
  - using simulation tools
    - using test tools as simulators, and/or emulators
    - using internal national classified networks
    - using national or NATO NCIA CFBL Network
- Provide IO assessment using TDL IO Matrix (IOM) and IO Assessment (IOA)
- Example, TDL CaT ITS / TDLIOT – classified





# How Can We Assist?

- Extensive knowledge of TDL
- Experience in capturing requirements – SRS & PRS
- Compilation of technical specifications
- Testing experience following NATO standards
- Provide SME experts for the definition of Lifecycle Costing
- System-of-systems & systems thinking advice & consultancy

- SyntheSys has over 30 years' experience in training business
- Customers from both government and industry
- Our trainers are experts within their fields – operationally and technically
- All our trainers have hands-on experience from exercises and real missions
- We offer simulations and real-time tools in many of our TDL courses
- We provide comprehensive training material for our courses
- We have an ISO 9001 certification
- We deliver your course at a location of your choosing

# Training Courses

## Our planned courses for 2025

- Data Link Manager / Interface Control Officer, 15 days
- MIDS Link 16, 3 days
- JREAP, 2 days
- Advanced Network Design, 8 days
- Identification Friend or Foe (IFF), currently 1 day, future 2 days

## New courses 2025

- Operational Introduction training, 3 days
- Hardware In the Loop Rig training, 5 days
- Test and Analysis training, 5 days

2025 Training Calendar		
<div><div>DLM/ICO</div><div>10-28 February</div><div>5-23 May</div><div>6-24 October</div></div>	<div><div>MIDS Link 16</div><div>24-26 March</div><div>16-18 June</div><div>8-10 November</div></div>	<div><div>JREAP</div><div>27-28 January</div><div>21-22 April</div><div>17-18 November</div></div>
<div><div>Advanced Network Design</div><div>25 Aug-03 Sept</div></div>	<div><div>NEW Courses for 2025</div><div>Operational Introduction</div><div>Hardware in the Loop Rig Test &amp; Analysis</div></div>	<div><div>Courses Available on Demand:</div><div>Intro to TDLs; Link 11; Link 22; VMF; IFF; MIDS Link 16</div><div>Network Design &amp; Management</div></div>

## Courses available on demand

- Identification Friend or Foe (IFF), 2 days
- Intro to TDLs, 1 or 2 day(s) – 2 options
- Link 11, 1 day
- Link 22, 2 days
- VMF, 3 days
- Network Design & Management, 4 days

## 2025 Training Calendar

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[www.synthesysdefencesystems.co.uk/training](http://www.synthesysdefencesystems.co.uk/training)







## Project Overmatch

Military use of MESH networking

# Any questions



