



Introduction to Link 22

28–29 August 2008

Presenter: Mr Tony Castle, SyntheSys

Holiday Inn, Potts Point, Sydney NSW

Teaching Arrangements

The course will be conducted from 9.00am to 5.00pm. Morning tea will be available at approximately 10.00am to 10.30am, lunch from 12.30pm to 1.30pm and afternoon tea at approximately 3.00pm to 3.30pm.

Registration Fee:
AU\$1320 (including GST)

Group and PhD student discounts available. Please enquire.

How to Register

To register fill out the registration form (overleaf) and

- fax it to +61-8-8302-3115
- or
- scan and email it to industryeducation@nicta.com.au

Cancellation Policy

At least **4 weeks** notice is required for cancellation of a place in a short course for full reimbursement. If cancellation is later than 4 weeks then the place can either be given to another person or the registrant can be provided with a credit towards other NICTA training.

For details of further courses please see our web site:
www.nicta.com.au/short_courses
or contact the NICTA Industry Education Manager.

About this course

This emerging TDL is seen as the replacement for Link 11 throughout NATO. The first implementation of Link 22 commenced in 2007. The course, which is based on STANAG 5522 and ADatP-33, will give students a sound theoretical knowledge of all aspects of Link 22 Operations.

The areas covered by the course include system architecture, network structures and an in depth look at the message catalogue and the capabilities provided by those messages.

Attendees will receive a copy of the *Introduction to Link 22* manual plus a CD containing the course presentations.

Target Audience: This course will provide attendees with a sound theoretical knowledge of all aspects of Link 22. The course is fundamental for military, government and defence industry representatives who will be involved with the introduction of this TDL. The course includes both operator (message capabilities) and engineering (system architecture and network structures) perspectives of Link 22.

Brief Course Outline

Introduction: History; The Requirement for Link 22; Link 22 Specifications; Frequency Bands; Frequency Hopping.

TDMA: Net Cycle Structure; Net Cycle Time; Time Division Multiple Access; Dynamic TDMA; Mini Slots; Interrupt Slot; Time of Day.

Link 22 Networks: Super Networks; Network Nodes; Sub Network/Partial and Total Overlap; Mission Area Sub Networks (MASN); Network Exchange; Addressing Techniques.

Operational Modes: Levels of Operation; Modes of Operation; Network Duties; Network Initiation; Late Network Entry; Network Shutdown.

Link 22 Messages: J Series Family; Message Format; F Series; FJ Series; Transmission Opportunities; Reception Reliability; Perishability; Receipt/Compliance; Priority Interrupt.

Track Exchange: Track Numbering; Message Prioritisation; Track Update Rates; Track Quality; Reporting Responsibility; Correlation; Filters.

Functional Areas: Participant Location and Identification (PLI); Surveillance; Information Management; Electronic Warfare; Intelligence; Threat Warning; Platform and System Status; Weapons Coordination and Management.

Weapons Coordination and Status Reporting: Weapons Coordination Messages; Status Reporting Messages; Engagement Status Reports; Controlling Unit Reports; Pairing Reports.

Hardware: Data Link Processor; Sub Network Controller; Human Machine Interface; Network Security Segment; Radios.

Data Forwarding and Interoperability: Definitions; Forwarding Rules; Management; Link 22 to Link 16; Link 22 to Link 11; Minimum Implementation.

Network Management: Management functions associated with: Supernetwork; Networks; Individual NUs; Directory Maintenance; Flow Control; Congestion Assessment.

About SyntheSys

SyntheSys is a specialist training and consultancy company working in the field of military tactical data links (TDLs). With over 20 years of TDL experience, SyntheSys provides independent, up to date and operationally relevant TDL training. SyntheSys consultants are either highly qualified systems engineers, or former military operational experts with many years of TDL experience. SyntheSys is recognised as a leader in the field of Link 22 training and is an authorised Link 22 training provider.

About NICTA and Short Course Program

National ICT Australia (NICTA) is Australia's ICT Centre of Excellence and was established to drive innovation through high quality research, research training and technology transfer. As a world-class research institute NICTA uniquely combines excellence in research, education, commercialisation and collaboration. We are working to ensure that Australia is well placed to benefit from the significant opportunities that ICT research delivers.

NICTA is funded by the Australian Government as represented by the Department of Communications, Information Technology and the Arts and the Australian Research Council through *Backing Australia's Ability* and the ICT Centre of Excellence program. NICTA members are the Australian Capital Territory Government, the New South Wales Government, the University of New South Wales and the Australian National University.

NICTA short courses offer scientists, engineers and managers technical training with a leading edge in areas such as telecommunications, transport, security, defence, logistics, e-government, mining, finance and biotechnology.

There will be ample opportunities for discussion and questions and answers. Morning and afternoon tea/coffee and a light lunch will be provided. Extensive workshop materials will be made available to participants.

How to register

Please complete the registration form below and

- Fax it to +61-8-8302-3115 or
- Scan and email it to industryeducation@nicta.com.au

Send the form as soon as possible to secure your place.

For further information please contact
Anne-Marie Eliseo
Industry Education Manager
Telephone: +61-8-8302-3928
Email: anne-marie.eliseo@nicta.com.au

Registration Form and Tax Invoice* ABN 62 102 206 173

*Upon completion of this form, including the relevant payment, this form will become a Tax Invoice.

Please register me for Introduction to Link 22 on 28-29 August 2008.

PLEASE PRINT

Date: _____

Title: _____ First Name: _____ Surname: _____

Position: _____ Organisation/Division: _____

Postal Address: _____

Telephone No: _____ Facsimile No: _____ Email: _____

Dietary preference: _____

Course Fees: Full fee: AU\$1320 (incl. GST)
(Register before **Aug 17th, 2008.**)

Method of Payment (please tick below):

Cheque (payable to National ICT Australia Ltd)
Forward the cheque and a copy of THIS registration form to:
Anne-Marie Eliseo, Industry Education Manager, NICTA, SPRI Bld, Mawson Lakes Boulevard, Mawson Lakes SA 5095, Australia.

Credit Card: Credit Card No.: _____ Expiry Date: _____

Visa Master Card Name on card: _____

Amount: AU\$ _____ Signature: _____ Tick if receipt required

Email address of card holder: _____

Electronic Funds Transfer
Please advise by email to Annette Van Bramer
annette.vanbramer@nicta.com.au
when payment is made

BANK	Commonwealth Bank of Australia
ACCOUNT NAME	National ICT Australia Limited
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FAX the form to +61-8-8302 3115 or EMAIL it to industryeducation@nicta.com.au

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- Send an email to comments@nicta.com.au or
- Phone NICTA's Industry Education Manager on +61 8 8302 3928.