Advancing human potential…we design, develop and deliver advanced courseware and state-of-the-art simulation technologies for high-tech industries including Defence, empowering personnel to perform at their highest level.

Roddy Warnock, Ph.D.
Senior Instructional Designer
Bluedrop Performance Learning, Inc.
Who We Are

- Publicly held, Canadian owned small business (140+ employees)
- Canadian Locations:
  - Newfoundland, Nova Scotia, New Brunswick, Ontario, Manitoba
- Two Business Units:
  - Training & Simulation
  - Learning Networks
- Largest Provider of Courseware in Canada, 3rd Largest in North America
- ISO 9001.2008 Certified
- ITAR & Controlled Goods Certified
National Shipbuilding Procurement Strategy (NSPS) Workshop

Core Competencies

- Training Needs Analysis & Design
- Courseware & Technical Documentation
- Training Information Management Systems
- Training Program Delivery & Support
- Simulators & Support
- Staff Augmentation
Defence Market Experience

Land
- Leopard 2 Tank Simulator Sub-Contractor
- Army Learning Support Centre – Training Program Support

Air
- CH-147F Aircrew Training Program
- CC-130J Training Program
- CH-148 Maritime Helicopter Program
- Contracted Flying Training & Support (CFTS)
- CF-18 Dedicated Weapons Load Trainer
- CF-18 Integrated Maintenance Training System
- 30+ RCAF Virtual Maintenance Training Projects

Naval
- Submarine Fire Control Trainer & Submarine Experimental Periscope Trainer
- KINGSTON Class Training
- CF Maritime Warfare Centre - MTOGS
- Halifax Class Modernization Program (HCM)
- Arctic Off-Shore Patrol
Defence Market Experience

• Experienced in Large & Complex Training Programs
  o Maritime Helicopter Program Courseware: 600 hours
  o C130J Courseware: 1100 hours
  o CH147F Chinook Courseware: 600 hours
  o Contracted Flying Training and Support: 700 hours
  o NATO Flying Training in Canada: 200 hours
  o Arctic Off-Shore Patrol Ship: 350+ hours
  o Maritime Coastal Defence Vessel: 300 hours

• 35+ years of Training and Simulation Experience
  o Atlantis Systems International
  o Atlantis Systems America
  o Eduplus
Training Capabilities

- All types of training (ILT, SPT, CAI, CBT, WBT, EPSS, Scenario- and Team-based Training)
- Full integration of audio, video, animation, and interactivity (IMI Levels 1 – 4)
- Simulation in 2D and 3D virtual environments using:
  - 3D Gaming engines
  - Virtual reality
  - Augmented reality
Development Management

- Extensive use of content management technologies:
  - Learning Management Systems (LMS)
    - Local and web content delivery
    - SCORM-conformant packaging
  - Learning Content Management Systems (LCMS)
    - Content authoring
    - Content organization
    - Content storage
    - Content look/feel
    - Media asset management
    - Preview
    - Build new content
    - Review
    - Export
  - Version control
  - Issue tracking
Bluedrop has developed and delivered a range of low to high fidelity Training Systems that include:

- Cockpit Procedures Trainers
- Helicopter Crew Training Systems
- Fixed-Wing Rear Crew Trainers
- Mission Rehearsal Training Systems
- Virtual Maintenance Trainers

These include both traditional tactile approaches as well as low-cost immersive virtual reality training devices.

Bluedrop offer several low-cost simulators.
Maritime Coastal Defence Vessel (MCDV) Training Program:

- 12 Kingston Class Ships Built in Late ‘90s
- Systems Approach to Training (SAT) – CFITES
- Developed the full crew initial and refresher training courseware
- Developed courseware for the mission payload under contract to SNC Lavalin
- Trained initial 4 MCDV crews
- Conducted Course Validation
- CBT component (450 hours)
- Installed 26 CBT Labs across Canada
- Bilingual Courseware
- Turnkey solution - $32 M
Naval Training: MESO

Marine Engineering Systems Operator (MESO) Training Program:

- Naval Reserve Marine Engineering Systems Operators (MESO) QL1 & QL3 training on the engineering system duties onboard KIN Class Maritime Coastal Defence Vessels (MCDVs).
- Knowledge-based CBT uses a structured systems design that progresses from theory to application, while instructing trainees on critical KIN Class MCDV engineering systems.
- Distributed Training Package on CD ROM to Naval Reserve Operators Across Canada
- 62 bilingual lessons developed
Developed 12 Training Modules for RCN for HALIFAX Class IPMS:

1. F1 – IPMS Familiarization (Self-paced)
2. Operations (Instructor Led (IL) Modules)
   O1 – Harbour Watchkeeping
   O2/O3 – Cert 2E/3E Operations
   O4 – ETOW Operations
   O5 – BDCS Operations
   O6 – DCC Operations
3. Maintenance (IL Modules)
   M1 – IPMS Maintenance
   M2 – SBT Maintenance
   M3 – SBT Operations
   M4 – OBTS/DCS Scenario Building
   M5 – EHM Operations
   M6 – IPMS LAN Management & Cabling
Maritime Tactical and Operations Gaming System (MTOGS) Training Program:

- RCN Task Group/Task Force (TG/TF) Command Team tactical warfare training.
- Commissioned at the Canadian Forces Maritime Warfare Centre (CFMWC) in Halifax for DND, upgraded in 2006 as part of Halifax Class Modernization (HCM) program.
- Training for tactics and planning using generic sensor and weapon systems simulations and displays.
Naval Training: Tactical Team Training

**Royal Netherlands Navy**
Commissioned at the BNLOPS School, Den Helder, accommodating up to 84 students

**Royal Saudi Naval Forces**
Naval Tactical Team Trainer delivered to King Abdul-Aziz Naval Base

**Republic of Bangladesh Navy**
Commissioned at the BN Tactical School, Chittagong
Over recent decades, the RCN has experienced a progressive change with introduction of:

- New ship classes
- New sensor technologies
- New weapon systems
- New propulsion systems
- New damage control systems
- Unification
- MOSID restructuring

Today, RCN is on the cusp of another major transformation:

- Introduction of 4 new ship classes (AOPS, JSS, CSC1, CSC2) and updated CPF (HCM and FELEX)
- Increasing operational demands
- Need to transform existing training model
National Shipbuilding Procurement Strategy (NSPS) Workshop

Arctic Offshore Patrol Ship (AOPS)

- Definition Phase work for Fleetway (ILS Tier 1)
  - Personnel Requirements Report
  - Training Needs Analysis
  - Training, Simulators and Embedded Training Report

- Implementation Phase (Training Courseware Development)
  - Upwards of 320 hrs of Platform Training
National Shipbuilding Procurement Strategy (NSPS) Workshop

Naval Training System (NTS)

- NTS needs “a complete re-assessment and transformation in order to bring it in-line with modern fiscal and technological realities”.
- Current NTS costs are unsupportable and budgets are likely to be further reduced.
- In March 2014, Bluedrop delivered results of a study examining delivery problems of existing NTS courses and training.
- Recommended a blended approach, increased use of self-paced WBT on DLN, with ILT focused on practical skills and delivered by both uniformed and civilian staff.
Benefits of a Blended Approach

Uniformed staff would continue to perform key functional roles:
  o Divisional and Administrative Support
  o Quality Control
  o *Shared instructional duties as secondary instructor for any instructor led training
  o Subject Matter Expertise

Contracted civilian staff would support the following functions:
  o Training Needs Analysis
  o Instructional System Design (Analysis, Design and Development of courseware)
  o Technology identification and insertion
  o Training Media Analysis
  o Support computer based training
  o *Conduct Instructor led training as primary instructors
  o Responsible for QSP, Lesson Plan and Content updates
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EXTRAS
Training Development

- Systems Approach to Training (SAT)
  - Needs Assessment
  - Training Needs Analysis
  - Gap Analysis
  - Course Design
  - Media Analysis
  - Courseware Development
  - Assessment
  - Quality Assurance
  - Evaluation Design

- ADDIE and SAM methodologies