Mark Andrew Wood, MSc. (Advanced Networking)
FHEA. (Fellow of the Higher Education Academy).

PGCHE, BSc (IT), Cisco CCNP, GVF Advanced VSAT, (G4HLZ).

Curriculum Vitae as of May 2020

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Mark has spent 45 years in Telecom and Emergency/Disaster relief, with half of that time spent as a Lecturer or trainer. Mark has been twice honoured for his work on Humanitarian Telecommunications projects, and has previously served the UN office for the Co-Ordination of Humanitarian Affairs as an Expert advisor and as Disaster Co-ordinator, and the ITU as conviener of Cell Broadcast harmonisation. Mark is active in the areas of Public Safety communications. His present position is Lecturer in Instrumentation and Control at the Gen2 Technical training centre in Cumbria.

Honorariums.

- **European Citizenship Award** for **'Outstanding Contribution to Public Warning'**. European Emergency Number Association (EENA) Brussels 3rd June 2008 with Catherine Ashton and Viviane Reading, EU commissioner for IT. (**EENA 2008**)

- **UN** INTERNATIONAL AWARD, ITU **Diploma de Reconnaissance** from **Secretary General of UN/ITU** for work on Secretariat of '**Tampere Convention' on Emergency Telecommunications. (ITU 1997)**

Honorary positions.

- CONVENER, **UN/ITU-T SG2** Public Warning Systems Harmonisation liaison group**.**
- EXPERT, **UN Working Group on Emergency Telecommunications (WGET)** delegate for Disaster Relief Communications Foundation (DRCF).
- Member of **Internet Engineering Task Force (IETF)** authority to citizen group (**ATOCA**).
- RADIOCOMMUNICATIONS OFFICER, **British Red Cross,**
- CHAIRMAN **ITAP**, UK Inter Agency Telecommunications Action Plan (UK).
- **Disaster Relief Communications Foundation**, technical advisor.
- **Civil emergency alert services Association (CEASA International)**, General Secretary, promoting international harmonisation of Cell Broadcast warning systems.
- **Lifeboat Crewman/Radio Operator. Flood rescue first responder.** Maryport Rescue.

Patents granted.	US-7,752,259 US-8,073,903 US-7,693,938 US-8,103,719 US-7,801,538 US-8,155671 US-7,917,413. Plus, others in China and Japan with other patents pending in Europe and other countries.

Positions.

Present. **Datacast Labs,** Chief Science Advisor.

Present. **Baastel Consultants.** CONSULTANT to Government of Mauritius on Emergency Telecommunications and public alerting.

Present. **Gen2 Academy, University of Cumbria.** LECTURER, electronics, instruments and control, Advanced Networking.

Present. **Meridian Labs, LTD.** DIRECTOR. Directing research into Geocasting technologies. Including cell broadcast and future Geocasting opportunities in 5G.

Previous.

May 2014-Sept 2014:

Kencomp Superfast Broadband NETWORK ENGINEER, Rural broadband into Cumbria Mountains and Yorkshire dales by microwave relay links and other technologies.

2006-Oct2012:

Cellcast Corporation (USA), CHIEF TECHNICAL OFFICER (CTO), responsible for the technical design of the integration of aggregator, gateway, and public warning by Cell Broadcasting service and liaison with the international standards authorities, OASIS, Governments and ITU.

Oct 2006-OCT 2012:

UN ITU-T/SG2 International Telecommunications Union, Study Group 2, (naming and numbering), CONVENER of the Cell Broadcast Harmonisation work group, EDITOR of Cell Broadcast and multicast addresses for civic purposes proposal (emic).

2004 – 2005:

IV Developments (UK) TECHNICAL TRAINER on police information system 'Ringmaster'. Travelling to Police forces around the UK, to conduct training, on voice and data public information systems.

Surrey Constabulary, Special Constable and TRAINER of TETRA radio systems and Intergraph ICAD operations.

April 2004:

ITU-D/BDT/LDC Senior Consultant, CONTRIBUTING EDITOR, Handbook on Emergency Telecommunications for Developing Countries 2nd Edition. Attend editorial meetings in Geneva, co-ordinate gathering of information from subject matter experts on matters pertaining to advice for regulators of developing countries,

concerning the behaviour of telecommunications systems during disasters, and the mitigation of such effects.

- **University of Wisconsin, USA** GUEST LECTURER Disaster telecommunications.
- **Cambridge University** (School of Engineering) GUEST LECTURER emergency communications.
- **UN Office for the Co-Ordination of Humanitarian Affairs Geneva,** TRAINER Disaster Communications.

April-July 2003:

United Nations OCHA, (Office for the Co-Ordination of Humanitarian Affairs), Inter-Agency TELECOMMUNICATIONS CO-ORDINATION OFFICER, (TCO). **(P4)** Serving in Syrian Arab Republic, for the Iraq emergency. Responsible to country Designated Official (DO) for security for **MOSS/MIST** compliance issues up to security phase 3. Duties included chairing the Telecommunications Working Group, reporting to the country Senior Management Team, (SMT) on all telecommunications related matters, negotiating with the government of Syrian Arab Republic on radio licensing related issues.

- GENERAL SECRETARY, International secretariat, **of Civil Emergency Alert Service Association (CEASA).**

- **University of Wisconsin, USA** Guest LECTURER Disaster Telecommunications.

2000-2003:

Ericsson Technical Training Ltd. SENIOR LECTURER/ COURSE DEVELOPER in WIRELESS NETWORK DESIGN, INSTALLATION AND COMMISIONING, OPERATIONS AND TROUBLSHOOTING ENGINEERING. Digital GSM mobile and UMTS 3rd generations systems. Also tasked with writing and delivering multimedia presentations on **wireless internet** systems to both technical and non-technical audiences such as managers, logistics people and sales channel professionals. Trained in **IP network administration** on Ericsson Juniper routers. Ethernets, hubs, repeaters, bridges, routers, DHCP servers etc.

- RADIOCOMMUNICATIONS OFFICER, **Red Cross,** responsible for strategic and day to day operations on radio communications at British Red Cross.
- Police officer (special constable) 5805 **Surrey police** 2002 - 2010.
- Guest Lecturer on disaster management, **University of Wisconsin.**

Business Continuity Planning Trainer, Ericsson Global Services Associate Member of the **Survive** Institute, UK. Trained on Ericsson's project methodology for Business Continuity Planning and Disaster Recovery service management.

1998-2000:

TOTAL SOLUTIONS MANAGER (PROJECT MANAGER), **Ericsson US**, San Francisco, California. Responsible for Technical sales support, preparation of specification of requirements, tendering and project delivery to AT&T cellular operators West coast USA. Work involved making multi-media presentations to boards of directors on future services, creating reports, presentations, answering technical queries, performing dimensioning calculations and resolving delivery problems. Contact point between Directors and project management/delivery. Attending trade fairs and conferences, representing Ericsson wireless products.

- DISASTER ACTION TEAM communications specialist **American Red Cross (Bay Area)**

1996- 1998:

Ericsson Inc, USA, TRAINER, RADIO BASE STATION FIELD ENGINEERING, Dallas, Texas. Instructed installation and commissioning engineers on procedures for Installation, Commissioning and troubleshooting modern digital telecommunications systems, especially GSM 1900. And D-AMPS

- **American Red Cross (Dallas),** DISASTER ACTION TEAM LEADER, DUTY OFFICER.
- EXPERT consultant **UN Working Group on Emergency Telecommunications** (WGET).

1993-1996:

Ericsson Stockholm, Sweden. TRAINER RADIO BASE STATION FIELD ENGINEERING**,** Design, write and deliver pilot training courses using latest multimedia presentation. Courses aimed at all grades from Technical to management and logistical sales groups. Prepare training needs analysis to define new working practices and ensure training is available to meet future needs of workers. Ensure ISO 9000 compliance regarding training compliance. Liaise with Stockholm Royal Technical University (KTH) on future technology training.

1990-1993:

Vodafone, Brentford **London** ENGINEER, RADIO BASE STATION FIELD MAINTENANCE. Perform troubleshooting, maintenance to network systems to high pressure timelines. Also, less urgent maintenance and operations work on sites and in liaison with other vendors, site visits housekeeping visits to sites.

- ASSISTANT RADIOCOMMUNICATIONS OFFICER St. **John Ambulance**. (1980-1993)
- Ambulance attendant and First Aid Trainer **St. John, London**. (1980-1993)

1988-1990:

British Telecom, Westminster. PLANNER AND SURVEYOR, CABLES AND EXTERNAL PLANT. Analyse network loading trends and design expansions to cable systems and exchange plant in London area. Carry out site surveys to determine locations of plant and formation of highways. Preparation of estimates of costs for new cable and duct projects, including reinstatement of road surfaces and alterations to underground structures. Use of computer data bases and archive material to determine layout of network.

1986-1988:

ILEA, City and East London College. LECTURER, ELECTRONICS AND INFORMATION TECHNOLOGY Taught microelectronics craft and theory, Information Technology and Computing, Telecommunications networks. To city and guilds level students on day release from local companies. Also liaise with employers on placement programme to ensure courses meet employer's needs.

1980-1986:

British Broadcasting Corporation (BBCtv) BROADCAST ENGINEER, RADIO TRANSMITTERS**.** Troubleshooting problems on live TV and Radio broadcasts. Preparing circuits for outside broadcasts, overseeing shift of engineers carrying out

O&M duties from **control room**. Also, maintenance of **telemetry** and **digital telecommand** systems for remote control of relay stations. Maintenance of high-power AM, SW, FM and TV stations and microwave links. UHF SHF. Small project work on electromechanical interlocks and remote control/CCTV systems. Training on AV equipment for studios. Work on high voltage circuit breakers and emergency power plant. Design and maintenance of internal communications equipment such as intercoms and PBXs. Worked on first satellite broadcast experiments at Crystal Palace.

1977-1980:

STUDENT of Marine RADIO AND RADAR, Riversdale technical college. Full time 3yrs course on electronics, telecommunications, Air-Sea Search and Rescue procedures and Radar Maintenance. Also Computing. Radar training on microwave transmitters and receivers, waveguide installation and antenna calibration.

- **HM Coastguard, air sea rescue** AUXILIARY COAST GUARD RADIO OPERATOR co-ordination centre, Liverpool, England.

1975-1977:

Holmes Protection, APPRENTICE ELECTRICIAN, Alarms and lock fitter. On day release studying Electrical Installation at Southport Tech. Troubleshooting and design of custom vehicle alarm systems. Passed with four distinctions.

Additional Information:

Work with International Red Cross is researching and training the behaviour of telecommunications networks during natural disasters, and how to overcome the restrictions placed upon organisations during these times. Also teaching disaster communications at University of Wisconsin, USA, teaching Telecom systems and how they behave in natural disasters.

Major qualifications:

MSc Master of Science in Advanced Networking Post graduate diploma in Advanced Networking 2015.

PGCHE post graduate certificate in Higher Education. (2016)

PTLLS. Preparing to teach in the lifelong learning sector. (2013)

Bachelor of Science BSc open from the Open University. 2009

Diploma in Information Technology, DIP IT (open) 2002

BBC Engineering certificate   (HND) 1983

Marine Radio General Certificate   (HND) 1979

City and Guilds Electrical Installation.   1977

3 'O' levels (English, Physics, History) and 5 CSEs Formby High School

Full list of certificates:

University of Cumbria;

PGCHE

Open University,

MSc Advanced Networking,
BSC open **(**open**)**
PG Dip Adv Net (open)
Dip IT (open)

T 293 Communication Technologies
T223 Microprocessor based computers
T305 Digital Communications
M206 Computing; an Object-oriented approach.
T 206 Energy for a sustainable future.
T 216 CCNA CISCO Certified Network Associate.

Cisco Academy (OU)

T824 Advanced Routing CCNP1.
T825 wide area networks CCNP2.
T826 Multi-Layer switching, CCNP3.
T828 Network Security, (CISSP, CCNP-S).

Riversdale College of Technology 1979

Marine Radio General Certificate (Ships Radio Officer) **(HND** equ.),
City and Guilds Amateur Radio.
Pitman touch typing.

BBC Engineering Training College, Wood Norton Worcs. 1985;

Broadcast Technician's Certificate A,
Broadcast Technician's Certificate B,
Broadcast Engineer's Certificate C, **(HND)**.

Southport Technical College 1976:

City and Guilds Electrical Installation B (Distinction),
City and Guilds Electrical Installation C (Distinction).

Ericsson Radio Systems, Stockholm.

GSM Mobile telephony system survey,

GSM base station Installation Engineering
GSM base station Installation
GSM base station Commissioning and first line maintenance.
Technical writing.
Base Station Controller Operations and maintenance
AXE Digital Switch O&M
Patents
Project management
Cellular Digital Packet Data
D-AMPS Air Interface
WCDMA Air Interface
UMTS Core Network
IP networking administration
Cell Planning,
Radio network Tuning
Radio Network Features
WCDMA Radio Network Design

Vodafone Engineering Training College, Newbury Berks, England.

CMS 88 AXE - RBS (ERICSSON)
Commissioning and first line maintenance RBS 881/883 (ERICSSON)
CMS 88 System survey (ERICSSON)
CME 20 RBS 200 [GSM] (ERICSSON)
Vodapage Transmitter Maintenance (Vodafone)
Eurotel ADPCM Transcoder (Vodafone)
BTS Maintenance course [GSM] (NOKIA)
CP 3000 [DSD] (Vodafone)
Analogue and Co-Ax Termination Principles (Vodafone)
Tellabs ADPCM O+M (Vodafone)

British Telecom Colleges (various):

Safety courses   E24301 and E23704
Cabling courses   E24326
External Planning (Cables and Ducts)

Formby High School, Liverpool 1974:

3 **CSE** grade 1, Physics, English, History ('O' LEVEL),

5 **CSE** other grades.

St. John Ambulance Brigade

Professional Instructor's Licence
Public First Aid
First Aid at Work
Caring for the sick I
Caring for the sick II
Ambulance Aid
Radio Procedures

American Red Cross

International delegate; training.
Introduction to Disaster Services

Disaster Action Team Workshop
Disaster Damage Assessment
Shelter Operations
Standard first aid.

International Federation of Red Cross and Red Crescent Societies (IFRC).

International Telecommunications Delegate; training.

Global VSAT forum

Advanced VSAT installation and maintenance.

End of summary. References on request.