



**MPE**  
Quality, Reliability, Performance

# Company Bulletin

for EMC, EMP, HEMP & TEMPEST Protection

## Issue 19

### MPE PEOPLE

#### Paul Currie recognised as Chartered Director

Paul Currie, one of the two Directors of MPE, has been admitted as a Chartered Director of the Institute of Directors as well as being made a Fellow of the IoD . . .

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#### MPE stars at 2019 Regional Business Awards

MPE was runner-up in the International Business of the Year category at annual Liverpool Echo Regional Business Awards held in Liverpool Cathedral . . .

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### MPE TECHNOLOGY

#### Launch of new TEMPEST filters for navies

In response to market trends and direct enquiries, MPE has developed a range of high-performance TEMPEST protection filters for naval applications . . .

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#### MPE attains major cyber security certification

MPE has attained the Cyber Essentials certification, assuring clients of the robustness of its data systems and their safeguards against online threats . . .

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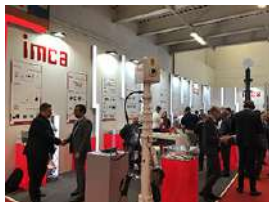


### MPE DISTRIBUTOR NEWS

#### Supporting IMCA at IDEF 2019 in Istanbul

At the 14th IDEF, IMCA displayed a selection of MPE filters and capacitors, particularly for Turkey's TEMPEST and military shelter applications . . .

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#### MPE appoints new distributor for Sweden

Completing the revitalisation of its presence across Scandinavia, MPE has appointed KAMIC Installation as its dynamic new partner for Sweden . . .

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### MPE APPLICATIONS

#### HEMP filters north of the Arctic Circle

MPE has provided a suite of HEMP filters for an upgrade of the USAF Ballistic Missile Early Warning System at Thule Air Base, north-west Greenland . . .

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#### Sea trials for Queen Elizabeth aircraft carrier

With EMC filters from MPE protecting her power supply lines, the new QE aircraft carrier is now undergoing sea trials around the coast of Britain . . .

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### FAST FACTS ON MPE LTD

- Trading for over 90 years, MPE employs over 50 people.
- MPE has designed and manufactured in excess of 10,000,000 high performance protection filters and feedthrough capacitors across the last 30 years.

- Many products in continuous service for more than 25 years.
- MPE's portfolio spans over 20,000 custom designs.
- MPE is certified to the ISO 9001:2015 quality standard, and its products meet all applicable defence, safety and regulatory standards.



For comprehensive information about MPE's products and services, contact the Sales and Marketing Department, MPE Ltd, Hammond Road, Knowsley Industrial Park, Liverpool, L33 7UL, U.K.

Tel +44 (0)151 632 9100. Email [sales@mpe.co.uk](mailto:sales@mpe.co.uk). Website [www.mpe.co.uk](http://www.mpe.co.uk)

If you have a friend or colleague who you think might find the MPE Company Bulletin informative, then why not forward it to them?



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Paul Currie

#### Paul Currie recognised as Chartered Director

Paul Currie, one of the two Directors of MPE Ltd, has been admitted as a Chartered Director (CDir) of the Institute of Directors (IoD), based in Pall Mall, London, as well as being made a Fellow of the IoD (FIoD). Since joining MPE in November 2011, Paul has been instrumental in the significant progress achieved by the company in key areas. He currently manages the Engineering, Human Resources, and Sales and Marketing functions.

As the only institute in the world to offer qualifications for directors under Royal Charter, the IoD is recognised by influential figures from business and beyond as the foremost organisation for executive and non-executive director training and accreditation. To date there are 1570 fully qualified Chartered Directors worldwide, with all their names displayed on an honours board in the IoD Academy at Pall Mall.

Paul Currie's IoD qualifications and experience spanning different disciplines were contributory factors in him being recognised by the UK's Engineering Employers' Federation (the EEF, now titled Made UK). He won their Leadership Award for the North-West Region and was a Finalist in the Leadership category at their national Future Manufacturing Awards in January, as reported in Company Bulletin Issue 18.

In order to progress to Chartered Director status, Paul was required to complete Certificate as well as Diploma studies.

For his Certificate in Company Direction, he successfully sat four separate exams and achieved his Certificate with Distinction. He completed his studies both remotely and residentially at the IoD's flagship training facility Ashorne Hill, Royal Leamington Spa. Study modules included: Leadership For Directors; Finance for Non-Financial Directors; The Director's Role in Strategy and Marketing; and The Role of the Director and the Board.

Subsequently Paul went on to study for his Diploma in Developing Board Performance, finishing with a period of residential study at the IoD headquarters in Pall Mall. Two months later he was awarded the Diploma, again with Distinction. This accredited qualification was an SCQF Level 11, comparable to QCF and EQF Level 7, or Master's degree level.

Having achieved these qualifications, last September Paul was required to submit a portfolio of documentation drawn from his knowledge and practical experience of company management and leadership.

Paul Currie was then invited to Institute of Directors headquarters for final interview and was proud to be admitted as both a Chartered Director and a Fellow of the IoD in December 2018. Since becoming a Chartered Director, Paul has had the opportunity to introduce to the MPE Board and senior management team a number of the strategic tools and techniques that he has acquired. These skillsets have given further impetus to the ongoing analysis, evaluation and refinement of company-wide as well as departmental strategies and their implementation.



Chartered Director certificate from the Council of the Institute of Directors



Headquarters of the Institute of Directors in Pall Mall, London



The IoD's training facility at Ashorne Hill in Warwickshire





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The 2019 Liverpool Echo Regional Business Awards in Liverpool's Anglican Cathedral



Editor-in-Chief Alastair Machray



BBC newsreader & journalist Nicholas Owen

### MPE stars at 2019 Regional Business Awards

MPE was runner-up in the International Business of the Year category in partnership with the Department for International Trade at the 2019 annual Liverpool Echo Regional Business Awards, held on 20th June in the magnificent setting of the city's Anglican Cathedral.

MPE's Directors David Seabury and Paul Currie attended with their wives. Headline sponsors of the black tie event, the landmark 25th anniversary of these Awards, were the Liverpool Business School at John Moores University, represented by Timothy Nichol, Dean of the Business School for the past four years.

The evening was introduced by Alastair Machray, Editor-in-Chief of the Liverpool Echo newspaper & other Trinity Mirror Group north-western titles since 2011, whilst the 12 different Awards were presented by the BBC newsreader and broadcaster Nicholas Owen.

In his welcome speech to guests, Alastair Machray said: "Fittingly for our 25th year we have had a rich crop of entries, both in terms of quality and quantity, which, in itself, speaks glowingly of the business acumen, enterprise and at times resilience that is obvious and evident in this very special region."

"Drive, determination, entrepreneurship and creativity are the hallmarks of our private sector. In return our councils and our combined authority are defying austerity to create an environment where good businesses can flourish."

Sports fans among the large audience were treated to a television style interview between Nicholas Owen and the current CEO of Everton Football Club and a Deputy Lieutenant for the county of Merseyside, Professor Denise Barrett-Baxendale, MBE.



Department for  
International Trade



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16A TEMPEST power line filter manufactured by MPE for the Royal Navy



Astute Class submarine



The new Royal Navy Type 26 frigate

## Launch of new TEMPEST filters for navies

In response to recent market trends and direct enquiries, MPE has now developed a range of TEMPEST protection filters specifically for installation within naval applications. This follows on from the “floating earth”, ultra-low-leakage power line filter range developed by MPE during 2017, as reported in Company Bulletin Issue 12.

The new range of ground-breaking filters comprises high-performance two-, three- and four-wire variants with low line-to-earth current leakage. The filters support system and equipment compliance with the overarching requirements of NATO TEMPEST SDIP-27 and SDIP-29 Standards and provide high levels of attenuation across the full frequency spectrum. They meet the line capacitance limitations of DEF-STAN 59-411 and MIL-STD-461 and are designed to be compatible with a ship's integral DC leakage detection systems.

The new filters have been developed for any naval application where TEMPEST protection is a requirement, typically briefing rooms, radio rooms, electronic warfare hubs, and navigation or command-and-control locations.

Indeed, MPE has many years of accumulated expertise and experience in manufacturing low-leakage filters, for use in applications such as secure communications systems, computer installations, portable screened enclosures and mobile tactical shelters.

The new range of TEMPEST protection filters includes models from 16A through to 125A, providing high levels of attenuation from 100kHz right up to 10GHz – and with exceptionally low line-to-chassis leakage properties from 16.6mA down to 3.6mA.

Mechanically these filters utilise stainless steel enclosures for enhanced corrosion resistance in marine environments, and are finished with high-quality epoxy paint. They have a very high resistance to shock and vibration, and are designed to have an extremely long service life.

Incorporating the same field-proven, ultra-high-reliability components as have been used for decades in MPE's other power line filter ranges, these ultra-low-leakage filters have already been designed into the highest profile marine platforms such as the Royal Navy's Astute Class submarines and their new Type 26 frigate as pictured here.

You can download your personal copy of the comprehensive, six-page datasheet on MPE's new TEMPEST power line filters for marine applications from [here](#).



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### MPE attains major cyber security certification

In May 2019 MPE attained its Cyber Essentials certification. This certification provides further assurance to clients of the robustness of MPE's data and IT systems and their safeguards against online security threats.

The UK Government has worked with the Information Assurance for Small and Medium Enterprises (the IASME Consortium) and the Information Security Forum (ISF) to develop Cyber Essentials, a set of technical controls to help organisations protect themselves against common online security threats.

The scheme is backed by industry partners, including the Federation of Small Businesses, the CBI and a number of insurance providers. In fact the British Government now requires all suppliers bidding for contracts involving the handling of certain types of sensitive information to be certified in accordance with the Cyber Essentials scheme.

The certification body is IntaForensics Ltd, whilst the accreditation organisation is the IASME Consortium. MPE's certificate no. IASME-A-011029 is valid until May 2020.

The Assessment phase was divided into five segments:

- 1) Boundary firewalls and Internet gateways
- 2) Secure configuration
- 3) User access control
- 4) Malware protection
- 5) Patch management.

Each of these five segments were then further subdivided, and the Assessment examined every piece of IT equipment at MPE, all IT security, malware and antivirus software in use at the company, and the robustness and policing of all of its IT processes. MPE was proud to have achieved 100% compliance in this Assessment.

The attainment of such Cyber Essentials certification demonstrates that MPE has a clear picture of the company's cyber security performance. The certification also provides reassurance to clients that MPE has taken the appropriate steps to secure its IT systems against future cyber attack and proves MPE's commitment to protecting its own and its customers' data.

The link to MPE's Cyber Essentials certificate is:

[www.mpe.co.uk/about-us/certificates/](http://www.mpe.co.uk/about-us/certificates/)





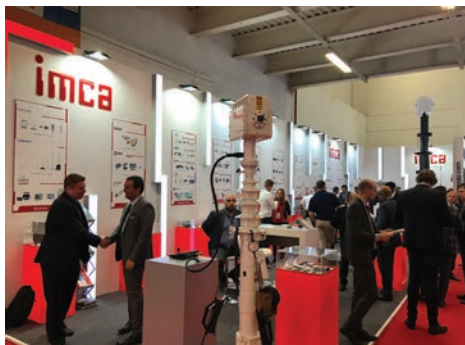


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The busy IMCA stand at IDEF 2019



Some MPE products featured on the IMCA stand

## Supporting IMCA at IDEF 2019 in Istanbul

The 14th International Defence Industry Fair (IDEF) ran from April 30th to May 3rd at the TÜYAP Fair Convention and Congress Center in Istanbul. Hosted by the Turkish Ministry of National Defence (Millî Savunma Bakanlığı), the biennial IDEF remains the largest defence industry event in the Eurasian region and one of the top five defence exhibitions in the World.

Having exhibited successfully at previous IDEF events, MPE's Silver distribution partner in Turkey, IMCA Elektronik, was again present, but with a much larger stand that provided more space to showcase their portfolio of solutions and hold customer meetings. Paul Currie of MPE participated at the Show in support of IMCA, who were displaying a selection of filters and capacitors from MPE's product ranges.

Despite the widely reported economic volatility and the commercial pressures that this has brought, IMCA has continued to champion MPE's solutions within the Turkish defence market, building upon its previous history of success in supplying both custom and catalogue products. MPE's sales to the region have grown year-on-year and are again set to grow in 2019.

As reported in Issue 18 of the MPE Company Bulletin, following an extensive market research program by IMCA particular focus has recently been directed toward the emerging TEMPEST market in Turkey. On their stand at IDEF IMCA therefore featured TEMPEST products from MPE alongside those MPE products applicable to the established military shelter market. In fact MPE products could be seen within various end-use applications on display around IDEF, such as Aselsan's range of mobile shelters.

Since the last IDEF event held in May 2017, IMCA has again expanded its team, with the company now comprising 37 employees, 25 of whom have an engineering degree. IMCA has also created and registered SACA, a satellite logistics operation which is based at Eindhoven, Netherlands.

Paul Currie commented: "I have greatly enjoyed working with Cemal Alpay and his team at IMCA over the past six years. Together we have established a solid customer base and a proven track record of supply and, with the Turkish Government maintaining its spending on defence, the opportunities being created for MPE's world-leading products can only grow."

**IDEF'19**  
14th International Defence Industry Fair  
April 30 - May 3, 2019

Silver Partner

**imca**



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From left to right, Torbjörn Jansson – Technical Sales, KAMIC Installation, Lars Åleby – Divisional CEO, KAMIC Installation & John Jephcott – Key Account Manager, MPE Ltd



KAMIC Installation is based in the city of Karlstad, built on the river delta in west central Sweden where the country's longest river runs into its largest lake

## MPE appoints new distributor for Sweden

Completing the revitalisation of its distribution across the Scandinavian region, MPE is pleased to announce the appointment of the KAMIC Group as its distribution partner for Sweden. This appointment further expands and strengthens MPE's global distribution network.

Being already active in the Swedish market, MPE has identified numerous promising opportunities to broaden its client base there. But, in order to take full advantage of them, MPE has recognised that it needs to align with a dynamic and progressive distribution partner well established in the territory.

The KAMIC Group is a privately held concern based in Sweden with subsidiaries and branch offices in 12 countries in Northern Europe, Asia and the USA and around 700 employees. The Group consists of more than 20 operating companies, split into four defined business divisions that supply products and services in specific market niches.

Accordingly MPE will be working direct with KAMIC EMC, which is part of KAMIC Installation, a division of the KAMIC Group which specialises in the provision of systems and components for shielding, absorption and protection in the electrical environment.

Located in the scenic city of Karlstad, KAMIC EMC has been working in the Swedish EMC sector for almost three decades and serves a well-established list of clients, including the likes of ABB, Ericsson and Saab.

So, following their appointment in late 2018, KAMIC's team completed applications and product training on a visit to MPE headquarters in Liverpool. Subsequently this year MPE Key Account Manager John Jephcott has been visiting the territory to conduct further training and undertake a program of customer visits.

Lars Åleby, the Divisional CEO of KAMIC Installation pictured here, remarked: "I am confident that KAMIC's well established profile in the marketplace will open up significant new business possibilities for MPE, whilst access to MPE's world-leading product portfolio will provide equally exciting opportunities for KAMIC EMC."

MPE Key Account Manager John Jephcott commented: "KAMIC's strong market presence is an obvious benefit to MPE and, since signing our distribution agreement, their enthusiasm and proactive approach have been very much in evidence. I am looking forward greatly to working with the KAMIC team as MPE's business in Sweden grows."



[www.kamicemc.com](http://www.kamicemc.com)



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Air traffic control tower at Thule Air Base



Radar array at Thule Air Base



HEMP filter from MPE

## HEMP filters north of the Arctic Circle

In 2016 Serco, Inc, a world-class provider of technology for essential services such as defence and aerospace, was awarded a \$38 million contract to upgrade the High-Altitude Electromagnetic Pulse (HEMP) Protection of the Ballistic Missile Early Warning System supporting the US Air Force (USAF) at Thule Air Base on the north-west coast of Greenland.

Thule Air Base with Pituffik airport is the northernmost base of the US Air Force, located some 1,207km (750m) north of the Arctic Circle and 1,524km (947m) from the North Pole.

This five-year contract, awarded under the Resilient Power and Mechanical Systems Basic Ordering Agreement of the US Army Corps of Engineers (USACE) Engineering and Support Center, Huntsville, Alabama, is to enhance and modernise the radar's HEMP protection via a design-build-install-test approach supporting the USAF Space Command and US Strategic Command.

As part of this contract award, following design works MPE was engaged to supply a suite of HEMP filters compliant with Mil-Std-188-125 and all of the specified site requirements. This suite of HEMP filters was manufactured by MPE in early 2018 and supplied via its Gold distribution partner TSS for onward delivery to Thule Air Base by the end of June of 2018. After all the installation work, the filters were successfully tested by specialist test house Jaxon, Inc of Colorado Springs, USA, in late 2018.

Thule Air Base is home to the USAF 21st Space Wing's global network of sensors providing missile warning, space surveillance and space control to North American Aerospace Defense Command (NORAD) and Air Force Space Command (AFSPC).

The base is also home to the 821st Air Base Group and is responsible for air base support within the Thule Defense Area for the multinational population of "Team Thule". The base hosts the 12th Space Warning Squadron (12 SWS) which operates a Ballistic Missile Early Warning System (BMEWS) designed to detect and track ICBMs launched against North America.

Furthermore Thule is host to Detachment 1 of the 23rd Space Operations Squadron, part of the 50th Space Wing's global satellite control network. The airfield's 10,000ft (3,000m) runway handles more than 3,000 US and international flights a year.

MPE has collaborated with Serco previously in the delivery of HEMP filters, on that occasion for the UK's RAF facility at Fylingdales, North Yorkshire, an application featured in Issue 10 of the MPE Company Bulletin and a similarly integral part of the Ballistic Missile Early Warning System for UK and US defence.

**serco**

Gold Partner







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HMS Queen Elizabeth



MPE power line filters

### Sea trials for Queen Elizabeth aircraft carrier

In Issue 8 of the Company Bulletin we described the assembly of the HMS Queen Elizabeth aircraft carrier at Rosyth dockyard in Scotland, and now this huge vessel has left Rosyth in June for sea trials around the coast of Britain. With nine decks below a flight deck 280 metres long by 70 metres wide, the 65,000-tonne vessel can carry up to 40 fighter aircraft and helicopters, British and American.

The HMS Queen Elizabeth is in fact the largest aircraft carrier in the world outside the United States Navy, and the first designed from the outset to operate a fifth-generation aircraft. The Royal Navy regards her and her sister ship, the HMS Prince of Wales, as adaptable and powerful maritime platforms, ready to deliver carrier strike missions, enforce no-fly zones, deploy Royal Marine Commandos, deliver humanitarian aid, and build international partnerships.

The initial six weeks of trials are for testing her engines and propulsion systems, plus her ability to produce fresh water, cope with sewage, feed the 700 crew members and 200 contractors onboard, and supply them with electricity. She will then prepare for a second set of sea trials to test the mission systems, sailing from her permanent base at Portsmouth. The full crew complement when aircraft and helicopters are embarked will be 1,600.

Construction of the £3.1bn warship has been in the hands of the Aircraft Carrier Alliance (ACA), a partnership of BAE Systems, Thales UK, Babcock and the UK Ministry of Defence. Amongst the subcontract partners, electrical solutions providers McGeoch Technology completed £7 million worth of contracts, ranging from all the lighting (24,000 light fittings), distribution panels, control and instrumentation panels, and junction boxes.

The vessel's design also demanded that EMC filter units were installed to filter the power supplies entering Black leakage path equipment within onboard TEMPEST compartments. Accordingly McGeoch Technology selected MPE as their preferred supplier, based upon a sound and successful working relationship on previous projects. Close collaboration ensured that fully proven designs and products were delivered on time and to budget to the aircraft carrier project teams.

In total, MPE has supplied 66 EMC power line installation filters of ten different designs to match the applications. These filters have ranged from 6A through to 63A and included both single-phase and three-phase variants from MPE's standard and low-leakage performance ranges. Each filter has also been mechanically customised with a bespoke earth stud design to suit the application.

There will be follow-on requirements for spares and support, continuing the strong working partnership between MPE and McGeoch. The next QE Class aircraft carrier of similar proportions, already in an advanced stage of completion, is the HMS Prince of Wales.

For further information on MPE's high-performance EMC power line filters, visit [www.mpe.co.uk/category/installation-filters](http://www.mpe.co.uk/category/installation-filters) or to download a product overview brochure click [here](#).