



continued growth

Ultra

Ultra Electronics Holdings plc Annual Report and Accounts 2003

ELECTRO



# continued growth

ULTRA ELECTRONICS IS A GROUP OF SPECIALIST BUSINESSES DESIGNING, MANUFACTURING AND SUPPORTING ELECTRONIC AND ELECTROMECHANICAL SYSTEMS, SUB-SYSTEMS AND PRODUCTS FOR DEFENCE, SECURITY AND AEROSPACE APPLICATIONS WORLDWIDE.

ULTRA, WHICH EMPLOYS 2,700 PEOPLE IN THE UK AND NORTH AMERICA, FOCUSES ON HIGH INTEGRITY SENSING, CONTROL, COMMUNICATION AND DISPLAY SYSTEMS WITH AN EMPHASIS ON INTEGRATED INFORMATION TECHNOLOGY SOLUTIONS. THE GROUP CONCENTRATES ON OBTAINING A TECHNOLOGICAL EDGE IN NICHE MARKETS, WITH MANY OF ITS PRODUCTS AND TECHNOLOGIES BEING MARKET LEADERS IN THEIR FIELD.

ULTRA'S PRODUCTS AND SERVICES ARE USED ON AIRCRAFT, SHIPS, SUBMARINES, ARMoured VEHICLES, SURVEILLANCE SYSTEMS, AIRPORTS AND TRANSPORT SYSTEMS AROUND THE WORLD. ULTRA ALSO PLAYS AN IMPORTANT ROLE IN SUPPORTING PRIME CONTRACTORS BY UNDERTAKING SPECIALIST SYSTEM AND SUB-SYSTEM INTEGRATION USING THE COMBINED EXPERTISE OF THE GROUP BUSINESSES.

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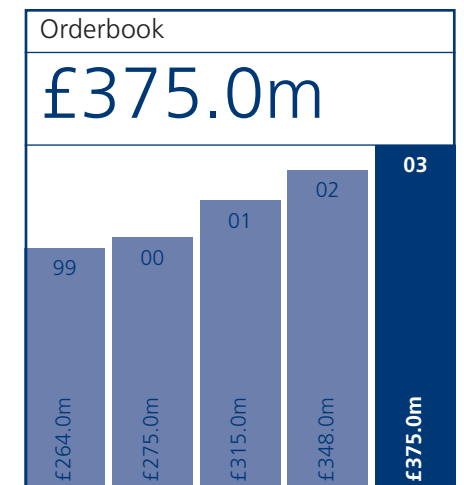
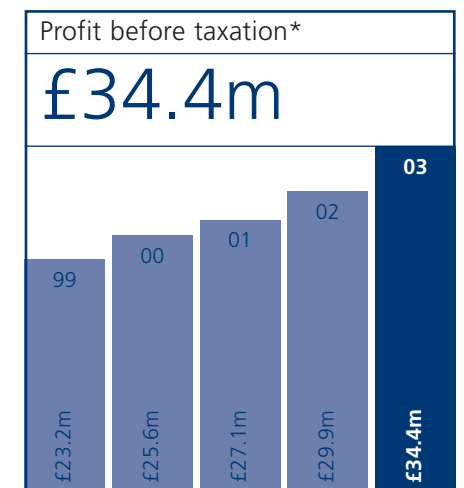
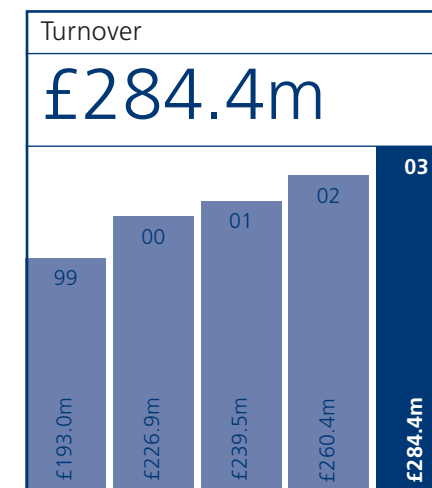


THE QUEEN'S AWARD FOR ENTERPRISE 2000 FOR THE MAGICARD PRINTER AT MANUFACTURING & CARD SYSTEMS



THE QUEEN'S AWARD FOR ENTERPRISE 2003 FOR HIPAG AT PRECISION AIR SYSTEMS

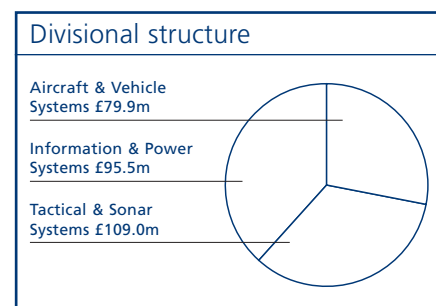
	2003	2002	GROWTH
TURNOVER (£m)	<b>284.4</b>	260.4	+9.2%
PROFIT BEFORE TAXATION (£m)*	<b>34.4</b>	29.9	+14.9%
EARNINGS PER SHARE*	<b>38.2p</b>	33.2p	+14.9%
EQUITY SHAREHOLDERS' FUNDS (£m)	<b>64.7</b>	54.6**	
OPERATING PROFIT MARGIN*	<b>13.2%</b>	12.8%	
EMPLOYEES (AVERAGE NUMBER)	<b>2,505</b>	2,395	



\* Before amortisation of goodwill. In 2003 this amounted to £4.9m (2002: £3.9m). Statutory information after goodwill amortisation: operating profit £32.7m (2002: £29.6m), profit before tax £29.5m (2002: £26.0m) and earnings per share 30.8p (2002: 27.3p).

\*\* 2002 restated for UITF 37.

\*\*\* 2000 and 2001 restated for FRS 19 – Deferred tax.



ULTRA ELECTRONICS SPECIALISES IN THE DESIGN, MANUFACTURE AND SUPPORT OF ELECTRONIC AND ELECTROMECHANICAL SYSTEMS, SUB-SYSTEMS AND PRODUCTS FOR AIRCRAFT, SHIPS, SUBMARINES, ARMoured VEHICLES, AIRPORTS AND TRANSPORT SYSTEMS. IT IS ORGANISED INTO THREE DIVISIONS: **AIRCRAFT & VEHICLE SYSTEMS, INFORMATION & POWER SYSTEMS AND TACTICAL & SONAR SYSTEMS.**

Aircraft & Vehicle Systems	Information & Power Systems	Tactical & Sonar Systems
<b>Sales</b> £79.9m (2002: £76.4m)	<b>£95.5m</b> (2002: £82.9m)	<b>£109.0m</b> (2002: £101.1m)
<b>Profit*</b> £13.9m (2002: £12.5m)	<b>£11.0m</b> (2002: £11.0m)	<b>£12.7m</b> (2002: £10.0m)
<p><b>CONTROLS DIVISION</b> ■ Landing gear control systems. Airframe and propeller de-icing and control systems. Propeller balancing systems. Civil and military aircraft cabin quieting systems using active noise and vibration control technology.</p> <p><b>DATTEL DEFENCE</b> ■ High integrity systems including safety critical software. Internet-based shared working environments and secure communication networks.</p> <p><b>ELECTRICS DIVISION</b> ■ Specialised control handles, high integrity switches and indicators. Lighting systems. Ruggedised cable harnesses. Data management and vision control systems for armoured vehicles.</p> <p><b>MEASUREMENT SYSTEMS INC</b> ▲ Displacement and force joysticks, hand grip controls, trackballs, encoders and simulation equipment.</p> <p><b>PRECISION AIR SYSTEMS</b> ■ High Pressure Pure Air Generators (HiPPAG) for cooling thermal imagers and infra-red sensors, and for pneumatic ejection of aircraft munitions. Sidewinder missile overhaul and repair.</p> <p>■ Businesses in the UNITED KINGDOM ▲ Businesses in NORTH AMERICA</p>	<p><b>ADVANCED PROGRAMMING CONCEPTS</b> ▲ Battlespace IT solutions. Software based data fusion and display systems for applications in military command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) systems.</p> <p><b>AIRPORT SYSTEMS</b> ■ Airport IT system integration. IT services and solutions for airlines and airports: central database (UltraDB); flight information (UltraFIDS); management information (UltraMIS); passenger bag matching (UltraTrak); resource management (UltraResource); data acquisition and control (UltraControl).</p> <p><b>COMMAND &amp; CONTROL SYSTEMS</b> ■ Optical and infra-red surveillance and tracking systems. Battlespace IT solutions. Geographical information management systems. Data link communication systems. Multifunction console systems with integrated application software for command and control. Weapon interface electronics.</p> <p><b>EMS</b> ▲ Specialised power supplies and demagnetising systems for the electromagnetic silencing of naval vessels.</p> <p><b>MANUFACTURING &amp; CARD SYSTEMS</b> ■ High integrity contract manufacturing. The Magicard range of identity card printers.</p> <p><b>PMES</b> ■ High power solid state power conversion and control equipment. Naval data processing and distribution systems. Transit system power conversion and control. Multi-influence measurement and control systems for the management of complex signatures of naval vessels. Magnetic and electric field sensors.</p> <p><b>SML TECHNOLOGIES</b> ■ Radar surveillance, navigation and safety systems for naval, coastal and offshore platforms.</p>	<p><b>FLIGHTLINE SYSTEMS</b> ▲ Sonobuoy telemetry receivers for maritime patrol aircraft and helicopters. Mechanical gyroscopes. Specialist military test equipment.</p> <p><b>MARITIME SYSTEMS</b> ▲ Passive sonobuoys and bathythermal buoys. Towed array sonars. High power sonar transducers.</p> <p><b>OCEAN SYSTEMS</b> ▲ Underwater acoustic countermeasures and systems.</p> <p><b>SONAR &amp; COMMUNICATION SYSTEMS</b> ■ Active and passive sonobuoys. Sonobuoy receivers and acoustic processors for maritime patrol aircraft and helicopters. Ship sonar systems. Torpedo defence systems and countermeasures. Data link communication systems. Cryptographic equipment.</p> <p><b>TACTICAL COMMUNICATION SYSTEMS</b> ▲ High capacity, multi-channel line-of-sight radios and multiplexers. Electronic counter-counter measure radio systems.</p> <p><b>UNDERSEA SENSOR SYSTEMS INC</b> ▲ Active and passive sonobuoys. Advanced autonomous sensor systems for coastal surveillance.</p>



SINCE FLOTATION, ULTRA HAS DELIVERED DOUBLE DIGIT COMPOUND ANNUAL PROFIT GROWTH, AND, IN 2003, PROFIT BEFORE TAX AND AMORTISATION OF GOODWILL GREW BY 14.9% TO £34.4M WHILE EARNINGS PER SHARE\* ALSO INCREASED BY 14.9% TO 38.2P

2003 was a busy and productive year for Ultra Electronics. Not only did we once again achieve record sales and profit but each division of the Group contributed to the overall sales growth and significant progress was made by a number of our businesses, including Airport Systems and PMES. In addition, three acquisitions were completed in the period.

Our record results reflect the Group's strong market position and the continuing success of our strategy of being a niche supplier of electronic systems and products in growing sectors within the defence and aerospace markets. Sales were 9.2% higher at £284.4m after accounting for adverse currency translation effects. Our battlespace IT, railway power equipment and airport IT activities drove this growth. Since flotation, Ultra has delivered double digit compound annual profit growth, and, in 2003, profit before tax and amortisation of goodwill grew by 14.9% to £34.4m while earnings per share\* also increased by 14.9% to 38.2p.

The Group's cash performance continued to be extremely strong with a conversion of operating profit\* to operating cash flow, after capital expenditure, of 131%.

The Board is recommending a final dividend of 8.2p, an increase of 9.3% to give a total dividend of 12.3p per share, which is a 9.8% increase year on year.

It is particularly pleasing to report that the progress made by the Group is spread across many of our businesses. A significant achievement was the contract won for our airborne compressor, HiPPAG, to be adapted for the F-35, the Joint Strike Fighter aircraft.

It is also expected that HiPPAG will be supplied to one of Boeing's weapons launching systems – a programme with significant potential for retrofit to existing aircraft fleets. Ultra's dominance of the sonobuoy export market continued with a range of international contracts secured during the year. Our airport IT systems business had an excellent year, with its passenger baggage reconciliation system being selected for a number of airports worldwide. Ultra won a prestigious contract to supply the system at London Heathrow for Terminals 1, 2 and 3 and it came into service on time in September 2003.

In order to strengthen its niche positions, the Group continued its high level of investment in the application of advanced technology to create new products in its chosen markets, coupled with the acquisition of complementary businesses. We bought businesses that strengthen Ultra's position in the fast growing areas of homeland security and battlespace IT. SML Technologies Limited and Radamec Defence Systems Limited, based in the UK, complement our existing capability in these areas and have been integrated into the Information & Power Systems division. Ocean Systems Inc., based in the US, strengthens our niche capability in underwater acoustics and is being integrated into the Group's Tactical & Sonar Systems division.

Looking towards the future, we will be introducing some Board changes to prepare for management succession in due course and these are detailed in the Chief Executive's review. It is fundamental to any business's continuing success that such transitions are planned in advance so that handover is effected

smoothly. Under Julian Blogh's stewardship, Ultra has recorded a superb performance and it is appropriate that he continues to guide the development of the Group.

The market environment for Ultra remains healthy with overall defence expenditure increasing in the major countries, fuelled particularly by a focus on electronic systems. The civil market is mixed – while the civil aerospace market has improved only marginally, some of the other markets we serve, such as railway infrastructure equipment and airport IT, have exciting opportunities within them.

Looking ahead, 2004 has started well and we began the year with a record order book of £375m, the equivalent of about 14 months of future sales, together with exciting opportunities to win new programmes. The Board is therefore confident of the outlook for the current year and beyond.

Finally, I would like to thank all Ultra employees for their hard work and continuing commitment, which have made such important contributions to the success of the Group.

Peter Macfarlane, Chairman

\* before goodwill amortisation

\* before goodwill amortisation of £4.9m (2002: £3.9m)



# continued high quality growth



ULTRA'S CONTINUING GROWTH IS FOUNDED ON ITS SPREAD OF ACTIVITIES, THE NICHE NATURE OF ITS PRODUCTS AND TECHNOLOGIES, AND ITS ABILITY TO MEET CUSTOMER REQUIREMENTS EFFICIENTLY AND EFFECTIVELY

## Successful strategy

Ultra continues to focus on being a niche supplier of electronics within the defence and aerospace markets

Ultra completed another successful year in 2003, which included good progress on major development contracts, the selection of HiPPAG for a number of future US programmes, the installation and commissioning at Heathrow airport of one of the world's largest passenger baggage reconciliation systems, and the acquisition of businesses that have strengthened Ultra's position in the fast growing areas of homeland security and battlespace IT.

### Growth

Ultra's continuing growth is founded on its spread of activities, the niche nature of its products and technologies, and its ability to meet customer requirements efficiently and effectively. With Ultra having no programme that contributes more than five percent of its sales in a year, this breadth of activity provides robustness to the Group's performance. Ultra's investment in new products and acquisitions is focused on sectors where budgets are growing; these

areas include homeland security and battlespace IT, with its associated command and control information systems.

### Acquisitions

The Group made three acquisitions in 2003: SML Technologies Limited ('SML'), Radamec Defence Systems Limited ('Radamec') and Ocean Systems Inc. ('Ocean Systems'), for a combined cash consideration of £18.3m, financed using Ultra's existing facilities.

The SML and Radamec businesses strengthen

+9.2%

### Sales

Reflecting increased demand for Ultra's battlespace IT, railway power equipment and airport IT systems

Ultra's ability to address the command, control and surveillance elements of the battlespace IT sector and are now part of the Information & Power Systems division of Ultra. SML is based near Southampton and provides radar surveillance, navigation and safety systems for naval, coastal and offshore platforms. Two thirds of its sales are to the offshore oil industry where its systems are used to monitor and control ship and aircraft movements for safety and security purposes. One third of its sales is to the military market, where its products are used as part of ship navigation systems or for coastal surveillance by radar. Radamec, based near London, is a supplier of optical and infra-red surveillance and tracking systems used on naval and land-based military vehicles. Radamec's customers are typically prime contractors with its products being used as part of naval command and control systems or within armoured vehicle surveillance systems.

Ocean Systems, based near Boston, USA, has a strong capability in underwater acoustics used to protect ships and submarines from torpedo attack and strengthens Ultra's niche capabilities in this sector. Ocean Systems is now part of the Group's Tactical & Sonar Systems division.

### Group results

In constant currencies, sales growth was 10.0%, of which 1.7% was organic. Including the translation effect of the weaker US dollar, sales rose to £284.4m (2002: £260.4m), an increase of 9.2%. Ultra's battlespace IT, railway power equipment and airport IT activities drove this growth, which more than compensated for the anticipated downturn in sales of sonobuoys.

+14.9%

### Profits

Profit before tax and amortisation increased by 14.9% to £34.4m (2002: £29.9m)

The Group's operating margin\* reached 13.2%, up from 12.8% in 2002. This margin increase resulted in part from some recovery of civil aerospace spares and repairs activity during the period and also from enhanced efficiency achieved on a number of contracts. Operating profit\* increased by 12.2% to £37.5m (2002: £33.5m), while profit before tax and amortisation rose by 14.9% to £34.4m (2002: £29.9m). With the effective tax rate\* for the Group virtually unchanged at 26.4%, earnings per share\* was 38.2p (2002: 33.2p), an increase of 14.9%. All these results are after approximately £0.6m of operating costs for the relocation, as planned, of Radamec, following its acquisition, to Ultra's existing facility at Loudwater, Buckinghamshire.

Operating cash flow, after capital expenditure, was extremely strong at £49.2m (2002: £39.5m\*\*). Conversion of operating profit\* to operating cash flow, after capital expenditure, was 131%, bringing the average conversion over the last five years to 94%. Despite the three acquisitions described above, at a cost of £18.3m after expenses, net debt during the year decreased by £9.0m to £30.3m. Interest cover\* for the year was 11.8 times.

The Group's order book stood at £375m at the year-end (2002: £348m) giving a typical level of order cover for Ultra, equivalent to around 14 months of future sales.

### Aircraft & Vehicle Systems

Aircraft & Vehicle Systems comprises five businesses in the UK and the US that supply advanced technology products and software for military aircraft and land vehicles and also for the civil aerospace market.

Sales in the division increased by 4.5%, all organic, to £79.9m (2002: £76.4m). Operating profit before goodwill amortisation was £13.9m (2002: £12.5m), giving an operating margin of 17.4%, an increase on the prior year's margin of 16.3%. A rise in civil aerospace support activity contributed to this improvement in margins.

The use of air power to support allied operations in complex environments is of vital military importance. The latest application of HiPPAG, Ultra's airborne compressor, is to assist in the launching of weapons from aircraft so as to improve accuracy and hence to minimise collateral damage. There were some important achievements for the product in the year. Ultra was awarded a contract to adapt HiPPAG for the F-35, the Joint Strike Fighter. In addition, Boeing was selected for the US Small Diameter Bomb programme and, as a member of Boeing's team, Ultra expects to supply its HiPPAG compressor as part of an aircraft's munitions launching system. These successes should lead to continuing growth of HiPPAG activity for the remainder of the decade.

Deliveries of indirect vision equipment were made on time to Alvis Vickers for the Engineer Tank System programme and the value of orders won for systems and equipment for armoured vehicles was about £10m. Ultra's secure shared working environment, which enables dispersed organisations to share data in a protected and controlled environment, was selected by a number of UK MoD integrated project teams.

### Information & Power Systems

Information & Power Systems, with the addition of SML and the integration of the

\* before goodwill amortisation of £4.9m (2002: £3.9m)  
\*\* restated for UITF 37



## £375m

### Order book

The order book of £375m, an increase of 8%, represents the equivalent of about 14 months of future sales

## 131%

### Cash performance

Cash flow was very strong at £49.2m (2002: £39.5m\*\*) with an operating profit\* to operating cash conversion, after capital expenditure, of 131%

## ULTRA'S INVESTMENT IN NEW PRODUCTS AND ACQUISITIONS IS FOCUSED ON SECTORS WHERE BUDGETS ARE GROWING; THESE AREAS INCLUDE HOMELAND SECURITY AND BATTLESPACE IT WITH THEIR ASSOCIATED COMMAND AND CONTROL INFORMATION SYSTEMS

Radamec business, consists of seven businesses in the UK and the US that supply information management and power products for defence, commercial and airport applications worldwide.

Sales increased in the division by 15.2% to £95.5m (2002: £82.9m), of which 8.2% was organic. Operating profit before goodwill amortisation was maintained at £11.0m (2002: £11.0m). The operating margin was therefore 11.5%, a reduction of 1.8% on the prior year. This was partly caused by the restructuring costs incurred for the relocation of Radamec, treated as operating costs, as described above.

The growth in revenue in the division was helped by an excellent performance by the airport IT systems business. UltraTrak, the passenger baggage reconciliation system, was selected for a number of airports worldwide, confirming its position as the world-leading solution for this requirement. The system was installed in Terminals 1, 2 and 3 at London Heathrow and came into service on schedule in September.

One of the highlights of the year was the success of the Group's railway power equipment activity. Revenues were boosted by substantial initial deliveries of power equipment for the upgrade programme on the Southern Region rail network in the UK, which is expected to continue for at least the next two years. There was also a high level of activity in Ultra's contract manufacturing

operation where deliveries of battlespace IT equipment destined for the British Army also contributed to the increase in sales.

### Tactical & Sonar Systems

Tactical & Sonar Systems, with the addition of Ocean Systems, comprises six businesses in the UK and North America that supply tactical communications and underwater warfare equipment to military users worldwide.

Sales increased in the division to £109.0m from £101.1m in 2002, a rise of 7.8%. As anticipated, there was an organic decline of 8.8%, caused primarily by reduced sonobuoy sales to the US Navy following the high levels seen in 2002, and lower sales on the UK Nimrod programme as deliveries approached completion. However, these reductions were mitigated by higher sales of communication equipment to the US Department of Defense. Operating profit before goodwill amortisation rose to £12.7m (2002: £10.0m), an increase of 27.1%, producing an operating margin of 11.6% (2002: 9.9%).

The two major development activities in the division, the sonar for the UK's Type 45 destroyer and the Surface Ship Torpedo Defence programme, both proceeded to plan in the year.

Ultra's dominance of the sonobuoy export market continued, with contracts awarded by Norway, France, Canada, Australia, Japan and Korea. Ultra also won contracts to supply sonobuoy receivers for use in the US, Norway, Sweden, Turkey and Spain

where new anti-submarine warfare aircraft are being procured. During the year, negotiations progressed with the MoD towards the finalisation of the sonobuoy partnering agreement, the intent of which is that Ultra will work in partnership with the MoD to meet all its future sonobuoy requirements on a non-competitive but cost effective basis.

### Management changes

Changes in the responsibilities of some Board members will be implemented following Ultra's Annual General Meeting on 22 April 2004, although there will be no change to the size of the Board.

I have been Chief Executive since the formation of Ultra in 1993 and will continue in this role for a limited period, but will reduce my time commitment to the Group to an average of three days a week. During this period, I will also take on the role of Deputy Chairman prior to taking over from Peter Macfarlane as Chairman in due course. Peter has been Chairman of Ultra since December 1994 and intends to continue in this role for at least another year following the AGM in 2004.

Douglas Caster, currently Managing Director of Information & Power Systems, will become Chief Operating Officer with responsibility for all of Ultra's operations. It is intended that Douglas will succeed me as Chief Executive. Douglas has also been with Ultra since 1993 and has an excellent knowledge of the Group.

\* before goodwill amortisation of £4.9m (2002: £3.9m)  
\*\* restated for UITF 37

## 30%

### Battlespace IT

Battlespace IT is now about 30% of Ultra's sales

## +14.9%

### Earnings per share\*

Earnings per share\* was 14.9% higher at 38.2p (2002: 33.2p)

## International

Ultra won sonobuoy orders in the US, the UK, France, Norway, Canada, Australia and Japan

## Acquisitions

### Strategic acquisitions

Acquisitions strengthened Ultra's position in the fast growing areas of homeland security and battlespace IT

Frank Hope will become Managing Director of Information & Power Systems in succession to Douglas, moving from his role of Managing Director of Aircraft & Vehicle Systems. A replacement for Frank for the management of Aircraft & Vehicle Systems will be announced in due course. Tactical & Sonar Systems will report to Douglas through Wayne Trowse in North America and Rakesh Sharma in the UK. David Jeffcoat, Finance Director, will continue to report to me.

### Prospects

Overall defence expenditure continues to grow in many countries including the US, UK and France and in some areas of the Far East. Within this expenditure, the change in the nature of the threat in recent years has resulted in a greater proportion of the spend being focused on electronics, both for new systems and for upgrades to systems in existing platforms, often aimed at providing a network enabled capability. The need for enhanced homeland security and the requirement to increase the tempo of military operations so as to decrease the time from sensor to shooter, all with the minimum of resources and risk, will benefit the suppliers of military electronic equipment. Ultra continues to be well placed to gain from these market developments.

In civil markets, aerospace continues at a low but consistent level, albeit with some recent improvement in support activity. Although this situation is not expected to improve in the short term, some of Ultra's other civil

markets, such as airport IT and rail power, are showing stronger growth. The airport IT systems business is benefiting from heightened security concerns and the continuation of committed capital projects. There has also been a significant increase in expenditure on rail systems, particularly in the UK, and this will continue in the medium term. With a strong balance sheet driven by high quality of earnings, Ultra enters 2004 with the capability to continue its strategy of acquiring complementary businesses in order to strengthen its market niches. These factors, coupled with the strong order book, give the Board confidence in the performance of the Group in 2004 and beyond.

Julian Blogh, Chief Executive

## Outlook

With an order book at the year-end of £375m and the headroom for further acquisitions, the Board is confident of the outlook for the current year and beyond



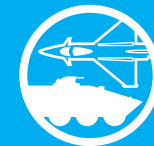
# growth from positions on key programmes

Ultra's HiPPAG compressor is fitted to F/A-18 E/F aircraft



Image courtesy of US DoD

ULTRA'S INNOVATIVE HiPPAG AIRBORNE COMPRESSOR IS FINDING NEW APPLICATIONS. FIRST USED TO COOL THE SEEKER SYSTEMS OF MISSILES, HiPPAG IS NOW THE ENERGY SOURCE FOR ADVANCED MUNITIONS LAUNCH SYSTEMS FOR MANNED AND UNMANNED AIRCRAFT



Pilots who fly F/A-18 E/F Super Hornet aircraft from US aircraft carriers undertake highly challenging missions. Typically, this will be to fly to the coast and then overland, deep into potentially hostile territory. Pilots need the aircraft's full range of defensive aids to be available at a moment's notice. They trust the AIM-9M Sidewinder heat-seeking missiles mounted at the wing tips. They know that the missiles will be instantly available as Ultra's HiPPAG airborne compressor is constantly pumping pure air that cools the seeker in the nose of the missile to maximise its sensitivity and effectiveness. The pilots can be certain that HiPPAG will maintain this capability automatically without them needing to divert their attention from the mission in order to check missile readiness.

Those pilots that are lucky enough to be trained on the advanced new F-35 Joint Strike Fighter will find that HiPPAG is also used to provide the pneumatic energy source to launch munitions from the aircraft's weapons bay. They will be confident that the launcher system incorporating HiPPAG will have the maximum availability for use and accuracy of weapon despatch.

Many modern military aircraft are to be retrofitted to enable them to carry a larger number of smaller, smart or individually targeted munitions. Boeing is developing its Small Diameter Bomb ('SDB') solution to meet

this modern requirement. The launch system within Boeing's SDB system also uses HiPPAG as the constantly available energy source.

Future air warfare will include a strong unmanned element. Increasingly, unmanned air vehicles are being upgraded to be able to deliver missiles or bombs. HiPPAG's light weight, high reliability and autonomous operation make it ideal for use in the weapon ejection system of unmanned combat air vehicles.

## Highlights

Within Ultra's aircraft and vehicle systems activities, successes in 2003 included the following

- Long-term agreement signed with Airbus securing Ultra's position on all single-aisle aircraft for at least 10 years
- Contracts were received from General Dynamics, Boeing and United Defense for equipment for the US Future Combat System programme
- Ultra won contracts from France and Sweden in addition to the UK and US for armoured vehicle crew station equipment
- A successful demonstration was held of Ultra's active noise cancellation system in the cockpit of a US C130 Hercules aircraft
- Ultra's innovative Internet-based secure collaborative working environment solution broadened its customer base



Ultra can quieten the C130 cockpit



Ultra's equipment is selected for F-35



Ultra provides armoured vehicle electronic systems



# increasing focus on homeland security

ULTRA'S MULTI-SENSOR SURVEILLANCE SYSTEMS CAN PROVIDE A HIGH LEVEL OF VIGILANCE AND ASSURANCE OF SAFETY FOR AREAS OF SIGNIFICANT STRATEGIC VALUE. ULTRA'S COST EFFECTIVE SYSTEMS MEET MODERN DEMANDS FOR HOMELAND SECURITY



All around the world there is an increasing focus on the protection of targets of high strategic value. These may include naval and commercial ports, oil fields and key sectors of coast and of national borders. The threat can be air, land or water based. In all these important areas Ultra has specific and often unique capabilities that can be combined to give a very effective security system.

Ultra provides highly cost effective radar surveillance systems using commercial radar heads and its unique signal processing to give spectacular results. An incoming rigid inflatable boat, travelling through the waves at 30 knots, is detectable far out at sea. The modern day threat will be small and fast moving, deliberately using local features to hide its approach. To protect land borders, Ultra can provide radar systems that will detect single vehicles or small groups of humans at considerable distances. This very cost effective surveillance capability contains a high degree of automation for target identification and classification to reduce operator workload. The pictures from numerous different radars can be combined so as to give continuous target tracking over large distances – down a long stretch of coast, for example.

When a radar track of interest has been identified, Ultra's high performance directional camera systems can be cued automatically to confirm or corroborate the nature of the target identified. Ultra's camera

systems can combine daylight, low light image intensification, thermal imaging and long-range optical variants. This provides effective visual surveillance in all weather conditions and at night.

Ultra's direction finding platforms on which the cameras are mounted may also be fitted with an in-built target tracking capability. This is effective against the approach of a low level, high-speed aircraft and the platforms can cue ground-to-air missiles against such threats. Ultra can also provide the heart of a comprehensive air defence capability and is able to combine many different radar inputs with intelligence data in many different formats in order to provide a high-integrity air defence picture.

Ultra's homeland security capability has been proven to be successful in very crowded environments. At offshore oilfields around the world, the Group's radar surveillance systems track and record hundreds of simultaneous ship and helicopter movements. The high-integrity nature of these systems makes them a critical element of the safety management processes in these hostile, crowded environments. Ultra's capability in this area also makes a vital contribution to drug interdiction and economic exclusion zone protection as well as maintaining constant vigilance against the threat of terrorist attack.

## Highlights

Within Ultra's information systems activities, successes in 2003 included the following

- The installation and commissioning at Heathrow airport of one of the world's largest passenger baggage reconciliation systems
- Further deliveries of Ultra's Air Defense System Integrator took the total sold to over 340 and it was used extensively in Operation Iraqi Freedom
- New Alto and Opera ID printers were introduced, offering increased functionality and enhanced value for money
- A significant contract was received to supply Ultra's advanced electro optical systems to QinetiQ for use by the Philippine navy
- Ultra's first surveillance systems were installed in China and in the Caspian Sea, enhancing safety in offshore drilling operations

Ultra's charting and surveillance systems enhance homeland security



Ultra's enhanced Magicard ID printers



Ultra's high performance camera systems



Ultra's passenger baggage matching system



# continuing requirement for railway power equipment

Ultra's power equipment for Southern Region



ULTRA'S HIGHLY RELIABLE SOLID-STATE ELECTRICAL POWER SYSTEMS ARE USED WORLDWIDE IN MISSION-CRITICAL DEFENCE APPLICATIONS AND ALSO FOR MODERN MASS TRANSIT RAIL NETWORKS. ULTRA RESPONDS TO CUSTOMER NEEDS WITH A RANGE OF INNOVATIVE SOLUTIONS



Faced with the problem of upgrading the power supply for its southern region in the UK, Network Rail needed the support of specialist power equipment companies with a dedication to delivering dependable, workable solutions on time – Network Rail chose Ultra to design and supply complete power sub-stations.

New trackside power sub-stations are being installed and set to work in a manner that minimises disruption to rail journeys using that section of track. Ultra's standard designs of transformer rectifier units and switchgear are housed in long life, modular steel buildings. These also house the vital safety interface and protection equipment that allow remote control of the system. This building block approach has greatly eased the task of designing site-specific solutions for the many sub-stations that need to be upgraded or replaced. Housing the systems in this way and subjecting them to a rigorous factory acceptance test at Ultra's factory prior to delivery greatly reduce the on-site installation time and the disruption to local communities. Where necessary, the housings are designed to be capable of delivery by rail, although most units are transported by road so as to minimise the interference with scheduled train operations.

For all installations, especially those where road access is not available, the time required to crane the unit into position must

be as short as possible. At Wrecclesham, Ultra's units were installed on the prepared concrete base at the side of the track in less than one working shift, at a weekend and without impacting the railway operational timetable. Ultra has also undertaken the associated cabling, interfacing with the safety circuits and other commissioning tasks. The focus on meeting the planned commissioning date earned special praise from Network Rail.

The two thousand new carriages that are being brought into service in the region drive the need for more power. They are longer, heavier and have features such as easy access electric doors together with improved heating and cooling systems. These new trains will also accelerate more quickly between stations and this all places a significantly larger demand for power on the system. Network Rail's investment programme will continue into 2005 by which time the number of trains in use will have increased and the power supply will have greater resilience whilst still having capacity for further growth.

## Highlights

Within Ultra's power systems activities, successes in 2003 included the following

- Ultra received US contracts for modelling the magnetic signature of vessels as an integral part of the overall ship's design process
- The design, manufacture and delivery of power equipment for UK navy ship FRA St George was completed in less than six months
- Contracts were received for signature management ranges for Australia and the Netherlands as well as an order for specialist sensors for the US Navy
- Four complete substations were delivered to Network Rail as part of the continuing upgrade programme for its southern region power supply
- Specialist power supply equipment was delivered on schedule for the first T-AKE class dry cargo ship for the US navy



Ultra's signature management solutions



Ultra supplies demagnetising equipment for submarines



Ultra's specialist submarine power systems





# growing demand worldwide for tactical communication systems

WORLDWIDE DEMAND IS GROWING RAPIDLY FOR HIGH-CAPACITY COMMUNICATION NETWORKS. IN THE MILITARY SECTOR, ULTRA'S RANGE OF HIGH BANDWIDTH LINE-OF-SIGHT RADIOS FORM THE BACKBONE OF AN ARMY'S TACTICAL AREA COMMUNICATION SYSTEM



The signals officer knows that he must set up his vitally important microwave radio relay terminal and make it available to the commander within thirty minutes. Allied forces are advancing and the need to process in a timely fashion the flow of high quality battlespace information between the commanders is relentless and growing. Success of military operations is dependent upon having secure and robust communications to provide information about the positions of the enemy and of allied forces. The signals officer and his team must quickly deploy and set to work his AN/GRC-245 radio system made by Ultra's Tactical Communication Systems business.

The next communications post is already in position, twenty five miles away across the heavily forested valley in the mountains. To facilitate the highest data transmission rates at this range, the antenna must be raised high in the air. The quick-erect telescopic mast, also supplied by Ultra, is fifty feet high, and must be guyed to keep it stable in winds of up to sixty miles per hour. Special operator features provided within the AN/GRC-245 radio will allow the rapid and reliable creation of a dependable link with the far-end site. In addition, Ultra's radio systems are especially efficient in their use of the radio spectrum. With so many other 'wireless' users making demands on the limited available radio frequency ranges, it is a significant

advantage that Ultra's radios can provide such close control and stability.

The radio terminal comprises three radio systems, all contained in a compact shelter mounted on a highly manoeuvrable vehicle, with the power generator towed behind on a trailer. This self-sufficient transportable system is fully integrated by Ultra and meets the most rigorous military standards for safety, electronic compatibility and ease of use. Ultra can supply each army with a custom-configured radio system, tailored to its unique operational needs. Ultra has fielded tens of thousands of radios, and many hundreds of integrated shelters. Ultra's experience therefore ensures dependable support of the mission under all tactical conditions.

The use of real-time video images of the battlespace and data from other specialised sensors helps increase the pace and effectiveness of military operations. It also increases the demand for communications capacity and therefore the need for radio systems such as those supplied by Ultra. This battlespace data is increasingly captured by surveillance equipment mounted in manned and unmanned aerial vehicles and is linked together so that the information can be passed to the battlespace network. Ultra specialises in the supply of data links to allow ground-based operators to control multiple remotely piloted aircraft simultaneously. In

addition, Ultra's data links are used to transmit digital battlespace information from aircraft to ground based centres in real time using secure and robust communications.

## Highlights

Within Ultra's tactical systems activities, successes in 2003 included the following

- Two further US Army signal battalions were equipped with Ultra's high capacity tactical radio systems making five in total
- The US and South Korean armies are upgrading their communication infrastructures with Ultra radios and placed additional contracts in the year
- Ultra received further UK orders for cryptographic equipment and completed a successful demonstration of a system for the US market
- A successful trial of Ultra's new, versatile and lightweight airborne tactical data link processor was completed
- Ultra was awarded a contract to develop an upgraded communications system for the US Patriot air defence system

Ultra's high-capacity army radio equipment



Ultra's advanced cryptographic solutions



Ultra's control equipment for unmanned air vehicles

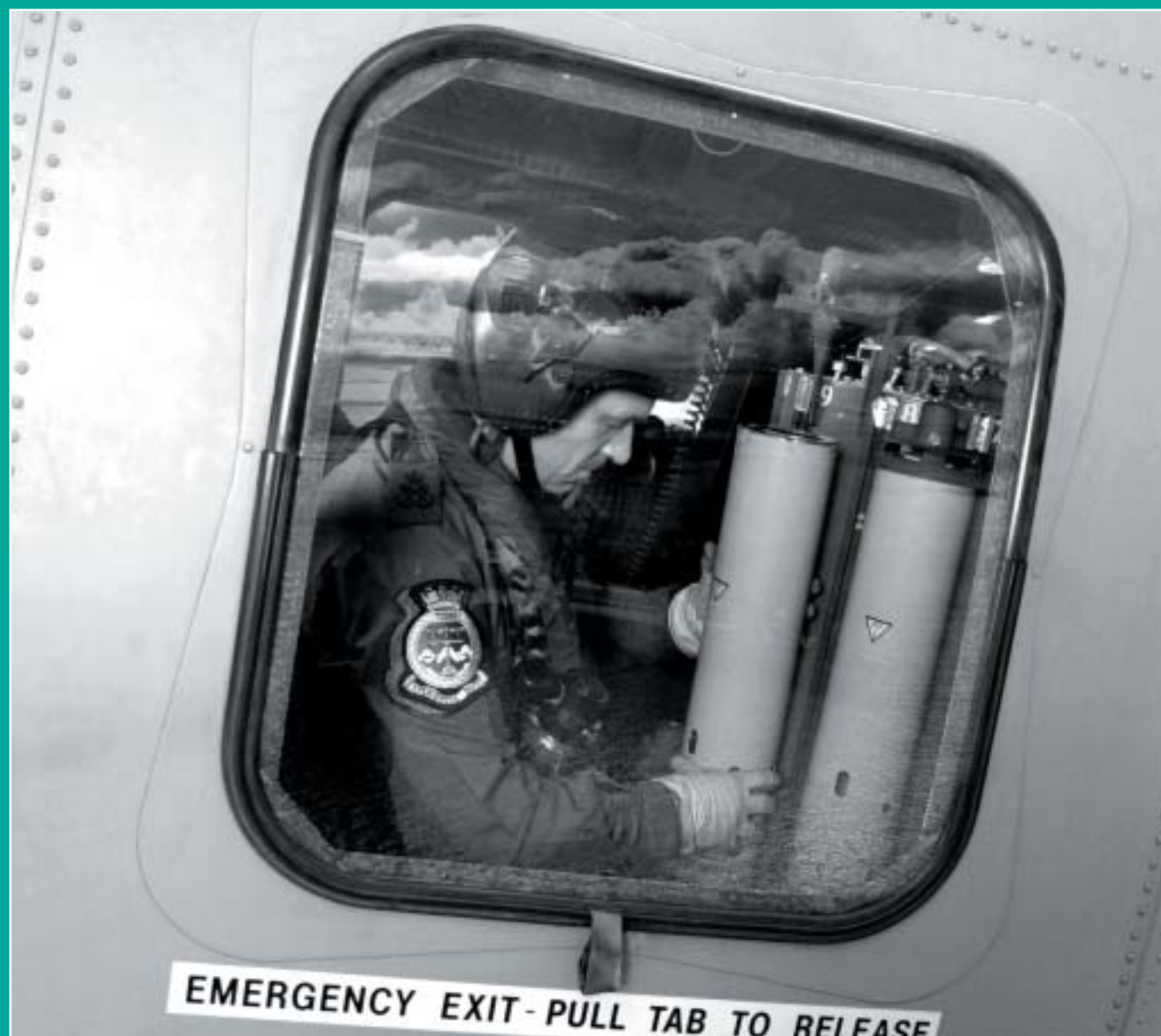


Ultra's airborne tactical data links



# growth in the market for underwater defence systems

Ultra equipment is used on new anti-submarine warfare platforms worldwide



ULTRA'S WORLD-LEADING EXPERTISE IN PROVIDING AUTONOMOUS ANTI-SUBMARINE SENSORS IS BEING APPLIED TO THE GROWING MARKET FOR UNDERWATER DEFENCE SYSTEMS AND FOR SYSTEMS THAT PROTECT KEY NAVAL ASSETS FROM ATTACK



A typical mission for a hostile submarine would be to cross open sea, loiter in the shallow coastal waters and approach a target ship just after it leaves its home port. Pitted against the submarine will be a range of detection systems, many of which are provided by Ultra. As the submarine crosses open sea, anti-submarine warfare aircraft including UK Nimrods and US Navy P3 Orions will drop patterns of sonobuoys into the water to listen for the acoustic signal emanating from the submarine as it moves through the ocean. Passive sensors may be augmented by active sonobuoys, which transmit energy pulses and then listen for the echo return. As the submarine closes in, ship-launched helicopters join the hunt. Any of these aircraft may deploy the latest multi-static sonobuoy system with several active sources and many passive receivers listening for the multiple return signals – a formidable sensing capability.

these arrays may have a satellite communication capability, also provided by Ultra. These advanced monitoring and protection systems utilise the broad range of capabilities that exist within the Group.

The target ship might also have other defences of its own. It may well be towing a highly sensitive array behind it, constantly alert for any sign of potentially hostile activity in the area. If the submarine does manage to get close to the target ship, it may have to contend with Ultra's Surface Ship Torpedo Defence system that detects torpedo launch and attack, classifies the threat and advises the captain on the optimal defence solution. The submarine commander is also aware that his torpedo, even after launch, could very well be decoyed or deafened by Ultra's wide range of countermeasures and thereby rendered impotent. Ultra's broad expertise in its specialist underwater battlespace market gives a significant advantage to the defenders against submarine attack.

In the shallow waters nearer the coast, special, longer-life versions of Ultra's sensors may already be tethered to the seabed rather than having been air-dropped. Advanced buoys developed by Ultra may sense magnetic sources or electric field anomalies in addition to a boat's acoustic signature. Deployed in fixed or floating arrays, this broad range of sensor types will be capable of monitoring all movement at sea. To ensure the quickest response to any threat,

Highlights	
Within Ultra's sonar systems activities, successes in 2003 included the following	
<ul style="list-style-type: none"> <li>• Ultra's new torpedo defence system for the UK Royal Navy successfully passed trials on a Canadian ship with international observers</li> </ul>	
<ul style="list-style-type: none"> <li>• Important milestones were successfully reached in the development of the bow sonar system for the UK's Type 45 destroyer</li> </ul>	
<ul style="list-style-type: none"> <li>• Ultra won contracts to supply sonobuoy receivers for use in the US, Norway, Sweden, Turkey and Spain</li> </ul>	
<ul style="list-style-type: none"> <li>• Successful flight trials were completed of Ultra's unique sonobuoy locating system on a Canadian anti-submarine warfare aircraft</li> </ul>	
<ul style="list-style-type: none"> <li>• Development started in the UK of sonobuoys to be part of the new high performance multi-static active search system</li> </ul>	



Ultra's advanced underwater countermeasures



Ultra supplies the bow sonar for the Type 45 destroyer



Ultra's underwater sensor arrays



# sales rose by 9.2% to £284.4m, with strong cash generation



THE IMPROVEMENT IN THE OPERATING MARGIN FROM 12.8% IN 2002 TO 13.2% IN THE PAST YEAR REFLECTED SUCCESS IN THE CONTINUING PURSUIT OF EFFICIENCY IMPROVEMENTS

## Successful strategy

Increased shareholder value through organic growth in niche markets and strategic acquisitions

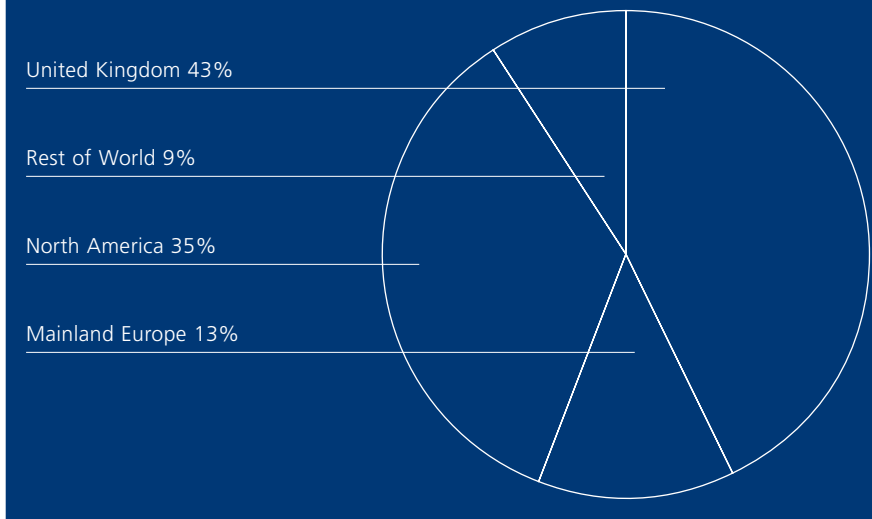
### Trading results

Group sales increased by 9.2% in the year to £284.4m (2002: £260.4m). Excluding currency translation effects and the contributions from acquisitions made in 2002 and 2003, underlying organic growth was 1.7%. Operating profit\* rose 12.2% to £37.5m (2002: £33.5m). On a statutory basis, operating profit after goodwill amortisation increased to £32.7m (2002: £29.6m). The improvement in the operating margin\* from 12.8% in 2002 to 13.2% in the past year

reflected success in the continuing pursuit of efficiency improvements. These compensated for higher pension and insurance costs and significant adverse currency effects. Ultra was affected by the weaker US dollar in 2003, which reduced the Group's sales and profits as reported in sterling. This was equivalent to a reduction of about 1.5% overall in both sales and operating profit\*. It was partly offset, however, by a stronger Canadian dollar.

\* before goodwill amortisation of £4.9m (2002: £3.9m)

## Sales by destination



80%

**Defence**  
Defence represents about 80% of Ultra's sales

Sales to customers in North America represented 35% of total turnover in the year, lower than in 2002 (39%). This reduction was caused by a combination of the weakness of the US dollar and lower sales of sonobuoys to the US Navy. It was mitigated by a full-year's contribution from Tactical Communication Systems ('TCS'), acquired in September 2002. Sales in the UK increased to a 43% share (2002: 42%) and mainland European sales were unchanged at 13%. Sales to the rest of the world rose by 3% to 9%, due mainly to a full year's contribution from TCS, which has significant sales of its military radios to South Korea and also to the Middle East. Sonobuoy sales to international markets also continued to be strong.

Defence markets remained the dominant part of Ultra's business during the year and represented 79% of Group turnover (2002: 81%). The increasingly important battlespace IT sector represented 28% of sales (2002: 24%), driven by the higher contribution from TCS together with 2003 acquisitions, Radamec and SML. Ultra's core sonar activities dropped to 24% of sales (2002: 31%) because of lower sales of sonobuoys, primarily in the USA. However, Ultra's important Surface Ship Torpedo Defence contract increased its contribution in the year. Higher deliveries of equipment for Eurofighter and further growth by Ultra's important HiPPAG products took military aircraft equipment sales to 11% (2002: 9%).

Sales of equipment for civil aircraft were

\* before goodwill amortisation of £4.9m (2002: £3.9m)

virtually flat at 8% of sales (2002: 9%). However, 2003 saw a resurgence in Ultra's other civil businesses. Sales in this market sector rose to 13% of the total, up from 10% in 2002, with good growth in sales of power equipment for railways in the UK, ID card printers and airport IT systems.

### Interest and profit before taxation

Interest costs were £0.3m lower in 2003 at £3.2m. This improvement can be attributed to lower effective interest rates and the fact that the 2002 interest charge included the write-off of costs associated with an old banking facility which was renegotiated that year. Reduced interest costs, combined with the 12.2% growth in operating profit\*, helped to raise profit before tax\* by 14.9% to £34.4m (2002: £29.9m). The interest charge was covered 11.8 times by operating profit\*. There was a £1.0m increase to £4.9m in amortisation of goodwill and intangibles, reflecting a full-year's charge for TCS, together with a partial charge for the 2003 acquisitions. Hence, profit before tax was 13.2% higher at £29.5m.

### Acquisitions

2003 was an active year for acquisitions, with three transactions being completed in the year. In July Ultra purchased SML and Radamec, both UK companies, for £6.5m and £6.0m respectively before expenses. Ocean Systems was acquired in November for \$9.5m (£5.6m). These three acquisitions gave rise to an extra £14.0m of goodwill, which will be capitalised and amortised over

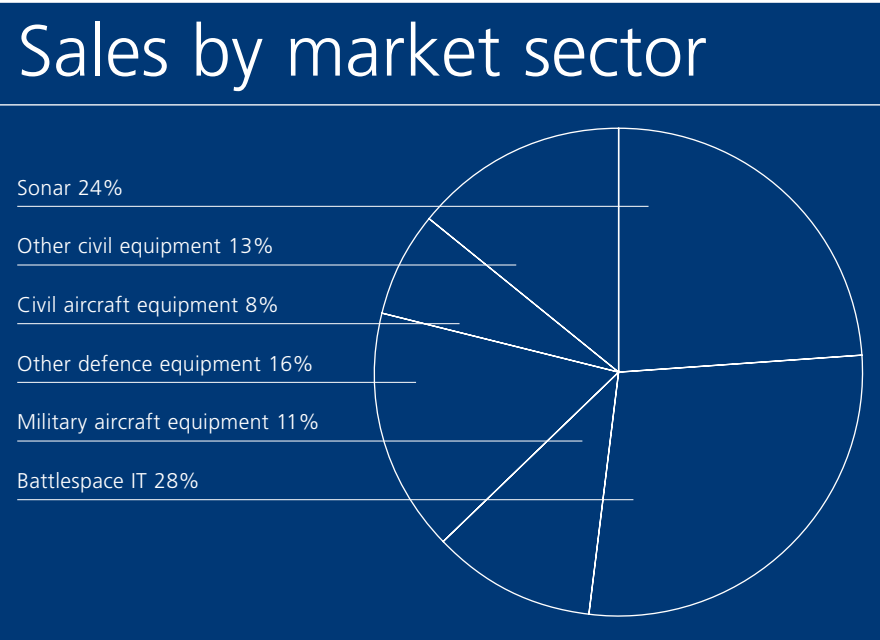
twenty years, being the anticipated useful life. The three businesses are trading in line with expectations and Radamec's operations have been transferred to the existing Ultra site at Loudwater, Buckinghamshire, UK. This caused reorganisation costs of £0.6m that have been charged against operating profit in the year. When combined with some costs of integration at Ocean Systems, required to establish the business as a free-standing operation, the effect was to bring the overall net contribution from the year's acquisitions close to breakeven. A positive contribution to profit is expected in 2004. The cash payments made for these acquisitions during 2003 totalled £18.3m including expenses.

### Earnings per share and dividends

With the effective tax rate on profit before amortisation virtually unchanged at 26.4%, earnings per share\* increased by 14.9% to 38.2p. The Board is proposing a final dividend of 8.2p, bringing the total dividend to 12.3p (2002: 11.2p), an increase of 9.8%. The full year dividend is covered 3.1 times by earnings per share\*, maintaining the Group's policy of strong dividend cover.

### Cash flow and borrowings

Ultra continues to place a high priority on strong cash generation and this is reflected in the result for the year. Operating cash inflow after capital expenditure was £49.2m, giving an operating profit\* to cash conversion ratio of 131%. This is the third year in succession that this ratio has exceeded 100%, bringing the five-year



THIS IS THE THIRD YEAR IN SUCCESSION THAT THE OPERATING PROFIT\* TO CASH CONVERSION RATIO HAS EXCEEDED 100%, BRINGING THE FIVE-YEAR AVERAGE TO 94%

**£36.6m**

**Free cash inflow**  
Free cash inflow before dividends, acquisitions and financing was £36.6m

## FOCUS

**Cash generation**  
Ultra continues to place a high priority on strong cash generation

average conversion ratio to 94%. This result was achieved mainly through a reduction in working capital of £13.3m in the year, despite a sales increase of over 9%. A stock reduction of £8.3m and a £5.3m increase in debtors and provisions were the key factors. Debtors remained virtually unchanged with a £0.3m increase. The investment in fixed assets was £6.8m, approximately £2.5m more than the depreciation charge for the year and £3.5m higher than in 2002. An investment of £1.9m was made in installing a new passenger baggage reconciliation system for leasing to airlines at Heathrow Airport. This system was capitalised and its cost will be depreciated over the five-year lease term. As a result of the excellent operating cash performance, free cash inflow before dividends, acquisitions and financing was £36.6m. Despite dividend payments of £7.7m and acquisition expenditure of £18.3m, net borrowings still dropped to £30.3m, a reduction of £9.0m during the year. With a debt:equity ratio of 47% at the end of the year, the balance sheet is very strong and there is comfortable headroom to make further acquisitions when suitable opportunities arise.

### Financial risk management

Ultra's financial instruments, other than derivatives, comprise borrowings, cash and trade funding consisting of debtors, creditors and customer advances. Group policy prohibits speculative transactions and no trading activity in financial instruments is

undertaken. Treasury policies are determined by the Group Finance Director, based on forecast business requirements, and are reviewed regularly.

### Financing

The Group finances its existing operations and new acquisitions through a mix of retained cash and bank borrowings. Ultra took out an £80m three-year revolving credit facility in 2002 with a syndicate of banks, led by The Royal Bank of Scotland. There will be no interim repayments during the term of the facility, which will be due for renewal in December 2005. It is denominated in sterling, US and Canadian dollars and is used for balance sheet hedging and operational needs. Both the sterling and US dollar elements of the facility are used to fund day-to-day working capital requirements. The US and Canadian dollar borrowings provide hedges for assets denominated in those currencies. A further £10m overdraft is also available for short-term working capital funding.

The facility replaced a five-year term loan used to finance Ultra's acquisition of the DF Group in 2000. An interest rate swap that fixed the effective interest rate at 7.5%, including margin, for the full term of the original loan will remain in place until April 2005, despite the refinancing. The balance to which this rate applies is gradually declining and will drop to £15m in April 2004. At 31 December 2003, 53% of total debt was at floating rates after taking

account of the swap, which applied to the first £23m of debt.

### Foreign currency

Ultra's main translation exposure is to the US dollar with lesser exposure to the Canadian dollar. The average sterling exchange rate against the US currency strengthened by 8% during the year, leading to a reduced contribution from Ultra's subsidiaries in the USA when their results were translated into sterling. Conversely the Canadian dollar rose in value against sterling by 6%. The combined translation effect of these currency movements upon Group sales and profits was therefore a reduction of approximately 1%.

The principal currency transaction exposure is to the US dollar as virtually all civil aerospace sales are denominated in US dollars. In addition Ultra's Canadian defence subsidiaries conduct much of their business in the US currency. Group policy is to hedge the net exposure on orders in hand using forward foreign exchange contracts, typically extending to 18-24 months. Exposure to other currencies is hedged as it arises on specific contracts.

### Pensions

The retirement benefits of Ultra's UK workforce are funded by a combination of defined benefit and defined contribution pension schemes, with most staff participating in the Ultra Electronics Limited defined benefit scheme. This scheme was

actuarially assessed in April 2001 when its solvency was 105%, or 115% on an MFR basis. Following the subsequent decline in share prices world-wide, the Group has closed the scheme to new members and also raised its contributions to the scheme from 10% of pensionable pay in 2001 to 15% in 2004, a total increase of approximately £1.3m per annum. In addition the members of the scheme are committed to a 2% increase in their own contributions. The scheme is relatively immature, with just 14% of retired members, and remains strongly cash positive. Ultra's US subsidiaries and Maritime Systems in Canada operate defined contribution schemes. Employees at Tactical Communication Systems in Canada participate in limited defined benefit schemes. Note 25 to these accounts contains additional disclosures on Ultra's defined benefit pension funding position in accordance with UK Financial Reporting Standard 17 – Retirement Benefits. The valuation at the end of 2003 showed an improved position for the UK scheme compared to December 2002, with a net pension liability of £19.3m (2002: £20.4m), after deducting the associated deferred tax asset. There was a net £1.0m deficit in the Canadian schemes.

David Jeffcoat, **Finance Director and Company Secretary**

## Strength

With a strong balance sheet, Ultra has the capacity to acquire complementary businesses that strengthen its market niches

\* before goodwill amortisation of £4.9m (2002: £3.9m)

## Board of Directors



**01 Peter Macfarlane\*** FCA FCT, Non Executive Chairman, age 65, qualified as a Chartered Accountant with Touche Ross and, after three years with Coopers & Lybrand joined Kimberley Clark, managing their financial affairs in Europe, Africa and the Middle East. He joined Rolls Royce in 1979 as Group Treasurer and, after a period as Director of Corporate Development, was appointed Finance Director in 1989. Mr Macfarlane retired from the board of Allied Domecq plc in 1998 where he had been initially Finance Director and subsequently Chairman of two divisions. He was appointed to the board of Ultra in December 1994.

**02 Julian Blogh** CBE PhD CEng MIEE, Chief Executive, age 60, has spent most of his working life in the electronics industry working with Ferranti Radar, Plessey Radar and Dowty Electronic Systems. He was Managing Director of Sonar & Communication Systems from 1987 to 1992, when he was appointed Managing Director of Dowty Avionics. He became Chief Executive of Ultra Electronics when it began trading in October 1993.



**03 Douglas Caster** BSc MIEE, Managing Director, Information & Power Systems, age 50, started as a Design Engineer with Racal in 1975, before moving to Schlumberger and then to Dowty as Engineering Director of Sonar & Communication Systems in 1988. In 1992, he became Managing Director of that division and joined the board of Ultra in October 1993. In 1999 he became Managing Director of Command & Control Systems with responsibility for Manufacturing & Card Systems, PMES, and APC. In April 2000, he was appointed to his current position.

**04 Ian Griffiths\*** BSc, Non-Executive Director, age 53, was appointed to the board in April 2003. He is a main board executive director of GKN plc, where he is Chief Executive of GKN Driveline, a major division of GKN with facilities in 30 countries designing and manufacturing driveline components and systems. He has been a member of the GKN Driveline senior management team since 1990 during which time he has been responsible for operations in the UK, USA, and global Marketing and Engineering based in Germany. He was appointed Chief Executive of GKN Driveline in November 2000 and to GKN plc Main Board in January 2001.

**05 Andrew Hamment** BA FRAeS, Group Marketing Director, age 49, started his career with Hawker Siddeley before moving to Schlumberger in 1980, working in procurement and then marketing at Weston Aerospace before transferring to Solartron as Aerospace Business Manager. He joined Dowty in 1988 as Managing Director of the Controls business. He was appointed to his current position in July 2000 and joined the board at that time.



**06 Frank Hope** PhD CPhys MInstP, Managing Director, Aircraft & Vehicle Systems, age 49, started his career with Tecalemit as a design engineer working on robotics. He spent 13 years with Avimo Limited latterly as Managing Director, having previously held the positions of Technical Director and Operations Director. He joined Ultra in 1994 as Managing Director of the Electrics division and was appointed to the board of Ultra in January 1999. In April 2000, he was appointed to his present position.

**07 David Jeffcoat** BA FCMA, Finance Director and Company Secretary, age 53, started his career as a production engineer in the motor industry. Since qualifying as an accountant he has held senior financial positions in several large corporations including GlaxoWellcome plc, where he was Finance Director of two subsidiaries. Before joining Ultra he was Group Financial Controller of Smiths Industries plc for three years. He was appointed to the board in July 2000.

**08 Andrew Walker\*** MA CEng, Senior Non-Executive Director, age 52, was appointed to the board in June 1996. He is Chairman of both the Audit and Remuneration Committees. Joining the Dowty Group plc in 1978, he became an operating board member during 1991/92. Following TI Group's acquisition of Dowty, he became Managing Director of John Crane Polymer Engineering. He was Chief Executive of South Wales Electricity plc (SWALEC) from 1993 to 1996, and was Chief Executive of McKechnie plc from 1997 to 2001. In 2000, he successfully led the MBO of McKechnie plc. Mr Walker is also a non-executive director of Halma plc, API Group plc and Manganese Bronze Holdings plc.



## Business addresses

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### Maritime Systems

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### Ocean Systems

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### UnderSea Sensor Systems Inc.

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### Measurement Systems Inc.

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### Precision Air Systems

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### Information & Power Systems

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### Airport Systems

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