NEW FRONTIERS
How Aramex is placing logistics at the heart of the new economic landscape

Delivering Hope
Why the tragedy in Gaza inspired a new era in community activism

TRADING PLACES
E-commerce delivers in the teeth of the credit crisis
Logistics is the infrastructure of life. In today’s world, nothing can take place without some form of logistics. At Aramex we are at the heart of this exciting industry which is as old as civilization itself. We launched The Explorer to introduce you to our world, a world of racing against time and challenging the odds so the essential goods and services in your everyday life are always there – where you need them and when you need them.
Welcome to the latest issue of The Explorer.

We are, it is fair to say, living in extraordinary times. The unprecedented economic realities the world is now facing have concentrated business leaders’ minds in every industry and every country; and no one can claim with any certainty that they are unaffected by the results of the credit crunch – whether in terms of declining demand for products or services, or a reduction in funds for new investment. When combined with global challenges, such as energy resources, climate change and the pressing problems of water supply, the political and corporate solutions developed in 2009 are sure to dictate the course of the next two decades.

These are challenges we shouldn’t shy away from, however. Indeed, there is now a genuine opportunity for innovative solutions, creative thinking and new ideas to surface, all of which have the potential to not only drive the recovery but change business practices irrevocably.

The logistics industry, of which we are at the heart, has the potential to foster such improvements. By increasing efficiency in the supply chain – through new technologies, improved services and greater transparency – we can facilitate trade, while at the same time reducing the impact on the environment. Aramex has long been committed to exploring the new frontiers of best practice in these areas, but never more so than now.

That is why “New Frontiers” is the theme of the first Explorer magazine of 2009. Over the coming pages, we hope you will be inspired by stories of personal achievement, business excellence and scientific advancement in areas once considered beyond our reach – and we believe the current global situation will only be overcome by a similar pioneering spirit.

Best regards,

Fadi Ghandour
Founder & CEO, Aramex
The boom in e-commerce has changed retail forever – and the current global crisis is set to solidify the trend in online shopping. p14

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In January, Aramex successfully harnessed the unprecedented levels of public concern across the region for the inhabitants of Gaza.

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Behind the Scenes

Human Excellence

Natural World

Famous Explorers
Imagine walking up to the sink to wash your face in the morning only to realise that there is no water coming from the tap. You immediately head for the roof to check the tanks, only to discover a lone bottle of water in its place – it’s barely enough to wash the dishes, never mind yourself. Sadly, that’s exactly the case for millions of people around the globe who are managing to survive on about three glasses of water a day. The minimum requirement is considered 20 litres per person, to be used to bathe, drink, cook, do laundry and offer proper sanitation in the home. Whether it is the lack of natural resources, natural disasters or political conflicts and wars, critical water shortage is an issue that threatens entire communities.

Jordan, despite 92 per cent of the land being classified as desert, is considerably better off than those countries, with careful distribution of both natural and imported water resources providing for the country’s domestic, agricultural and industrial requirements. However, according to Dr Hazim al-Naser, a member of Jordan’s Parliament and a former Water and Irrigation Minister, the apparent abundance is more than a little misleading. “The kingdom always had a water scarcity problem, but it has got worse over the last few decades,” he explains. “Water demands have risen during the last 30 years, with a 25 per cent rise in the population, and recent winter seasons not offering much rainfall.”

Indeed, the rapidly growing population, estimated at around six million people, combined with the depletion of the natural water aquifers in places such as Azraq and the decreasing rainfall, mean Jordan is heading towards the summit of the global water poverty league table. With 100-150 cubic metres annually available per capita, it is seriously approaching the disease-inducing shortage zone, let alone the inevitable limits that water shortages can place on both agricultural and industrial development.

Jordan’s efforts to solve its water supply problem
The government has considered a range of long-term solutions to develop water supplies that aren’t dependent on increasingly unpredictable rainfalls or groundwater supplies, and without the need to seek water from similarly-pressed neighbours. “In 2002, the government started a long-term investment programme that includes 63 water and irrigation projects to be implemented before 2015,” Dr Hazim says. “Some are already in operation, like Wahdah Dam between Jordan and Syria, Mujib Dam in the south and the Samrah Waste-Water Treatment Plant, that caters for both Amman and Zarqa cities.”

The major infrastructure projects are all efforts to make maximum use of limited water supplies, and have all been planned since the late 1980s, with the Wahdah Dam, a joint Syrian-Jordanian project, the first to see the light of day. In order to assure that Jordan receives its share of the Yarmouk River supply, and to help save the depletion in the river’s basin, what became known as the “Unity Dam” was put into operation in 2006. The first stage of a $90-million project that could ultimately hold 225 million cubic metres – of which 80 million cubic metres will go to Jordan – is now in operation, with a current capacity of 15 million cubic metres.

Disi Water Conveyance Project
Jordan has been using water from the Disi aquifier, located in the southern part of the kingdom, since 1980. It annually provides about 16.5 million cubic metres for domestic use in the port city of Aqaba and about 75 million cubic metres for agriculture in the surrounding area. A massive new engineering project, albeit one that has been debated for over a decade, will transport 100-120 million cubic metres annually from the Disi water to Amman, some 325km away. The near $1-billion project is one of the biggest of its type in the region, and has necessitated development funds from France and the World Bank. Turkish company Gama have secured the contract, and will start the four-year work of building the pipelines – using 250,000 tons of steel – and digging the 55 wells by the end of 2009. It is, according to then Minister of Water Raed Abu Saud, “a radical solution to Jordan’s chronic water problems.”

Red Sea-Dead Sea Canal
A joint Israeli-Palestinian-Jordanian committee continues to study the economic and environmental effects of a canal that would connect the Red
Sea and the Dead Sea. According to Raed Abu Saud, the canal has two main goals: saving the Dead Sea, which has been retreating at an alarming rate, and providing drinking water. The proposed “Red Sea-Dead Sea” canal would bring about 1,900 million cubic metres from the Gulf of Aqaba to the Dead Sea, whose surface area has shrunk by more than 33 per cent over the past 20 years. And for domestic and agricultural use, according to Hazim al-Naser, “it is expected to provide Jordan with 500 million cubic meters annually.”

The high costs of the project, currently estimated at $3 billion, together with a number of political and environmental concerns – both Egypt and Saudi Arabia have asked to be involved in the planning process – have so far resulted in the project being confined to the drawing board. But Jordan Valley Authority Secretary General Moussa Jamaani said the Kingdom was fully committed to the Red-Dead conveyance action, stressing that the country is in “dire need” of the project. “The Red-Dead scheme would help end the country’s large water deficit,” Jamaani told The Jordan Times.

The World Bank, a major partner in the project, is still urging patience. “There are no foregone conclusions here that we are going to end the country’s large water deficit,” Jamaani told The Jordan Times.

“While the times, sea and the mud have left their marks, the show must go on!” exclaimed Alexander McPhail, the World Bank’s representative. “First, we will do the feasibility studies, then we will decide if we need to do something.”

These ultimately logistical solutions – the transfer of water from areas of plenty to areas of deficit – are vital for a country of Jordan’s geographical and political position. A desert country in a less than stable region needs as many viable solutions as possible. As former Minister of Water and regional expert Duraid Mahaseh concludes: “We need to invest in research and development that will lead to innovative projects and other ventures that will assure that the 21st Century will not be marred by water-based conflicts. This is a genuinely new frontier and must be acknowledged to ensure an agreement is not only lasting, but just.”

**Where in the World…**

**were you last genuinely lost?**

“...well, to be honest, I get lost every single day! I don’t know why, I think my head is full of other things... But right now I am filming a new feature in Egypt and even on set I go in completely the wrong direction, and end up somewhere I don’t know. All the assistants start calling ‘Madame Saba, you have to go left not right!’. So, no, I don’t think I can go through any single day without getting lost!”

“...I had just attended a West Bank quarter-final match in Jericho, which I had got to by bus from Jerusalem. After the match, though, all the buses seemed to have disappeared, but a club official suddenly drives past and offers me a lift. He then drives around the massive roadblock, shouts out to the Israeli soldiers that he’s with a British journalist – obviously why he gave me a ride – then drops me on a street saying I can get a bus from there. After waiting an hour and not seeing another vehicle, I began to walk towards the nearest town, but had no idea where I was, or where I was going! It was pitch black and I had just $2 in my pocket. I was totally stranded and was really beginning to get a little frightened, with no idea where I was going to spend the night, when a group of teenagers in a pick-up stopped to pick me up and drove me to the edge of Jerusalem. Not a pleasant experience!”

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* Moussa Jamaani

**The Saudi solution**

Many of the solutions being put into practice in Jordan have already been tried in Saudi Arabia. The Shuquq Water Conveyor project, developed by the Saline Water Conversion Cooperation (SWCC), is set to build a 900km pipeline with carbon and ductile iron pipes, to supply water to Abha, Jizan and Dahan al-Janoub. The project is expected to be operational by 2010.
Getting a handle on the latest generational shift can be onerous. While many researchers say that the newest breed – Generation Z – encompasses those born from 1990 onwards, there are as many experts who contend that the starting point is as late as 2001. The confusion doesn't end there. For every commentator who believes this next influx of employees will be multi-skilled, technologically astute and worldly wise due to their exposure from an early age to the myriad advances of the late 20th century, the counter-argument contends that tomorrow's workforce will be unhealthily self-obsessed and pampered – their egos puffed up to bursting point by indulgent parenting and the bland aspiration of modern celebrity culture.

The truth, as always, lies somewhere in the middle. But there's no doubt that the school and university leavers entering the workforce from this year onwards will possess skills and certain characteristics that will set them apart from their predecessors – and will be called “digital natives”, a catch-all for a generation that has never known a world without the internet. And, according to Dennis Mack of Dubai-based recruitment firm IQ Selection, their easy ability to roll with the technological times is likely to stand them in good stead when it comes to forging a career.

“They take being connected to everything as the everyday state of communication,” he explains. “They are incredibly knowledgeable about a range of subjects because they have access to a mountain of information that we in Generations X and Y never had.”

Yet while easy access to online information has its benefits, it could be that overstimulation proves a problem for both employers and employees. While the days of having a “job for life” are long gone, with businesses propagating short-termism through reduced contract-lengths and less favourable packages, Generation Z-ers are unconcerned. Transitory by nature, and more engaged with a range of different interests, career shifts are now the norm rather than the exception.

While Mack agrees that the air of permanence, or at least steadiness, that used to surround a career is eroding, he argues that it doesn’t necessarily have to be a bad thing. “It’s now up to employers to work harder to provide an environment that is both welcoming and stimulating. These guys have made a clear statement that they won’t be wage slaves just for the sake of having a job. They’ve got a lot to offer. It’s just going to need companies to go that extra mile to ensure that they are happy.”

“These guys have made a statement that they won’t be wage slaves”
Dennis Mack

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**Z STARS**

Just when we'd got the hang of the Starbucks-swilling, e-working Generation Y, there's a new demographic to get to grips with: Generation Z.

Words by: Duncan Forgan
GPS applications mean more for the logistics industry than simply maps and directions

For consumers right now, GPS means little more than the street maps in their mobile phones, or being guided through an unfamiliar city with soft-voiced instructions from a black box on the dashboard of their SUV. But for business, and for the logistics industry in particular, the technology of Global Positioning Systems represents a complete revolution in service delivery – massively boosting efficiency and transparency in all manner of shipping, transportation and delivery services.

At Aramex, the technology has now been added to its entire fleet in the MENA region, with receivers able to give precise real-time location information and also generate data which can be used to analyse the overall performance of each Aramex station. For instance, a mid-sized station will typically undertake 50 trips a day. The GPS receivers will be able to provide the whereabouts of each Aramex vehicle to the call-centre to ensure the swiftest collection and delivery for any new orders.

“This technology can differentiate us from our competitors,” says Mr Samer Awajan, Chief Technology Officer at Aramex. “For consumers it means they will always know where their packages are, and for business clients we can offer supply chain solutions, providing just-in-time storage and delivery capability. It really can be a quality assurance tool.”

Recently, the company has been considering the option of applying more GPS-related technologies like RFID Smart Tags. These tags are small chips that can be attached to any kind of package, even the smallest ones, to give the company an extreme visibility of the package location. “These can give us the exact location of the package at any time, even the movements of the delivery vehicle, by leaving a trace signal every time the package goes near a ‘hot-spot’,” he says. “And that will make the package recognisable remotely. Right now, Aramex utilises GPS applications to offer more detailed tracking records for sensitive packages, like credit cards or bank records”.

Applying the science
The GPS technology Aramex employs was developed in conjunction with Lebanon-based firm GeoVision. According to sales and support manager Khattar Khairallah, it is a web-based solution that links to each vehicle in the fleet. “The GPS transmitter, which is actually built in Lebanon, is attached discreetly to the car to make sure of the accuracy of the transmitted data. It sends XY coordinate information to the satellite and the accompanying web application will give a live check-up of each vehicle’s exact location on the map.”

The data transmitted to the receiver – or “listener” unit – can process messages from Aramex staff that will instruct the drivers where to go next, and even the best way to get there. With increased efficiency, consumers benefit nearly as much as the environment.
It’s an ambitious goal for any company. For one in the logistics industry, where planes, trains and automobiles provide the means of facilitating your service, it might seem little short of impossible. But Aramex is determined to become the world’s first carbon neutral logistics company, and certainly one of the first in the Middle East in any industry. It’s part of the company’s commitment to sustainability, and to begin the process of offsetting the effects of the fossil fuels consumed in the company’s operations.

In Jordan, this process has begun with an expansive tree-planting initiative in Aqaba, in the far south of the country, close to the city’s airport. By the end of June, in a specially-designated reservation, 10,000 new trees will not only help absorb damaging CO₂ but provide homes for thousands of migrating birds making their way up the Great African Rift Valley. “We worked hand in hand with the Jordan Society for Sustainable Development,” says Raji Hattar, Aramex’s Chief Sustainability Officer. “When the land was made available to us, we established that we could put 10,000 trees in the area. Based on international carbon footprint standards, we have calculated that each tree will compensate for 1,500km of our executives’ business air travel in its 40-year lifetime. That’s basically 0.8 tons of CO₂.”

There are more environmental benefits to the Aqaba site than simply as a means of offsetting carbon emissions. The trees will, according to Raji Hattar, help stave off the process of desertification that is an ever-present danger in the sun-scorched, salt-laden plain north of the Red Sea coast. And Aramex isn’t simply planting the trees, it is providing the irrigation solution, too – from the pipes to the recycled grey water from the city. A third major factor in the selection of this site is that it is a major resting place point for migrating birds. “The site has largely replaced Azraq as Jordan’s main stopping point for birds on their annual migration,” Raji continues. “The reservation is already an important bird observatory, and this will help to sustain their numbers. The trees have been sourced either from local nurseries, to ensure they are appropriate for the climate and soil, or imported especially.”

There are ten distinct species of trees that will make up the new woodland, including acacia, eucalypts and buckthorn. At the time of going to print, 5,000 trees are already in place in the special Aqaba reservation, and beginning the drive to carbon neutrality.

Aramex unveils a new tree-planting initiative in the Red Sea port of Aqaba as the latest step towards carbon neutrality.

**CO₂ EMISSIONS FACTS**
- Each tree can consume up to 0.8 tons of CO₂ during its 40-year lifetime.
- A normal person can produce up to 2.5 tons of CO₂ every year.
- A small van will produce up to 3 tons of CO₂ a month.

**What have you explored today?**

**Amr Waked**  
Star of *Syriana* and *The House of Saddam*

“This morning I explored the stock market, checking on the likelihood of a rally and which stocks are looking strong enough to maybe invest in. It had slightly recovered the last time I looked – with some healthy signs that indicate there could be some build up of positive activity. I am feeling pretty good about things, actually!”

**Kamal Musallam**  
Jazz musician and oud virtuoso, whose latest CD is *Out of My City*

“I’m in Cairo now and this morning I explored the area outside of my hotel. I am here for a jazz festival and although I have been to Cairo before, it is a city of such contrasts and contradictions that there is always more to see. You can be talking to a man selling food from a cart one second and in a club with a millionaire the next. I love it.”
It might have been one of Aramex’s more unusual delivery requests, but a shipment from London to Singapore for a client in Sri Lanka ultimately helped win an award – and showcased Aramex’s truly global reach. The unlikely shipment was of a lifesize waxwork of 17th century German-born botanist Georg Eberhard Rumphius, who achieved scientific fame with *Herbarium Amboinense*, a compendium of the native plants of Indonesia that was published posthumously in 1741.

The waxwork was created by Mike Wade Associates, who are the appointed craftsmen for Madame Tussauds in London, and formed a part of specialist tropical plant growers Borneo Exotics’ exhibit at the Singapore Garden Festival – the most prestigious show of its kind in Asia. Sri Lanka’s Borneo Exotics are among the world’s leaders in growing Nepthenes, a tube-like carnivorous plant species more commonly known as “Monkey Cups” or “Pitcher Plants”. For the Singapore event, the company’s designers Diana Williams and Robert Cantley created a 100-metre-square garden called Season of Mist, which was filled with various Nepthenes surrounding the waxwork figure of the man who first gave a scientific description of their characteristics. The exhibit was entirely constructed in Sri Lanka before being containerised and shipped to Singapore where it came out of the box in perfect condition thanks to Aramex. “Rumphius was a big hit with the visitors because he was so lifelike,” says Robert Cantley. “Without Aramex’s professionalism, this exhibition would not have been possible,” he adds. The show attracted some 300,000 visitors over eight days.
The 245km Marathon des Sables might well be the toughest race in the world, but for Salameh al-Aqra there are few better ways to spend a week.

Interview: Musa al-Shuqairi

First is everything, the saying goes, and second is nothing. It’s a motto that Aramex-sponsored extreme marathon runner Salameh al-Aqra must have etched on every gruelling training session. In 2008, at the Marathon des Sables, the 245km race through the Moroccan desert, the Jordanian ran through a crippling stomach illness and overcame a 15-minute deficit to come within a matter of metres of registering a notable first place in the toughest marathon on the planet – and topping a field of more than 800. One seasoned runner even said: “We owe Salameh al-Aqra much of this week’s excitement!”

For the 36-year-old former policeman, though, the compensation wasn’t remotely enough for six days of punishing action. He doesn’t train for 200-250km a week to come runner-up – and not when the race involves being, in his words, “away from civilisation, running in the heat, using just three bottles of water a night for washing and drinking”. If you are going to endure that, you want to end up with a gold medal around your
he is happy to credit Aramex with facilitating.

The Moroccan brothers have a long history of success in cross-desert adventure, with Salameh al-Aqra leading the way. In 2004, he set off for Morocco for the annual Marathon des Sables, where he was able to achieve a remarkable run of results – not least eighth place in last year’s Marathon des Sables. The association has seen them, red kit and all, travel to marathons in Austria, which Salameh has won a staggering six times, and Cyprus. In addition to funding, they provide training camps, transportation, apparel and even the necessary nutrition.

“Basically, they help me with everything I need,” Salameh confirms. “Just think about the fact that long-distance running requires very expensive sneakers, and not only that, the race sneakers have to be different from the training sneakers I use week to week. Aramex has helped me achieve my ultimate goals in representing my country and raising the Jordanian flag all over the world.”

And before he departed for another cross-desert adventure, the prospect of six days without so much as a shower, let alone a massage, represented not just a competition but his raison d’être. “Simply, this is what I love to do,” he says, almost dismissively, “run and seek out new challenges. It is known as the toughest race on earth and people come from all over the world to participate, so I am just lucky to get the opportunity to take another shot at winning it.”

Fortunately, at the time of going to press, we learned that Salameh failed to register a first win in the Marathon des Sables, coming third in an event that was shortened by horrendous rain and flash flooding on several sections of the course. Though disappointed, Salameh vowed to be back in 2010.

**RACING CERTAINTIES**

**Salameh al-Aqra’s major accomplishments**
- **Austria Ultra Marathon**
  - Best position: First (x6)
- **Amathunta Half Marathon, Cyprus**
  - Best position: First (x3)
- **Cyprus Marathon, Paphos**
  - Best position: First (x4)
- **Red Sea Marathon, Jordan**
  - Best position: First (x2)
- **Dead Sea Ultra Marathon, Jordan**
  - Best position: First (x4)
- **Marathon des Sables, Morocco**
  - Best position: Second (x2)
- **Dubai Marathon, UAE**
  - Best position: Third
- **Sheikh Zayed Marathon, UAE**
  - Best position: Seventh

**First (x6)**
- Best position: Seventh

**Second (x2)**
- Best position: Seventh

**Third**
- Best position: Seventh

**General Classification – Final**

1. Mohammad Ahansal (Mor)
   - 16h 27m 26s
2. Aziz el-Akad (Mor)
   - + 4h 14s
3. Salameh al-Aqra (Jor)
   - + 47m 40s
4. Anton Vencelj (Slov)
   - + 1h 47m 09s
5. Mustapha Ali Amar (Mor)
   - + 2h 16m 40s
6. Lorenzo Trincheri (Ita)
   - + 2h 19m 14s
7. Samir Akhdar (Mor)
   - + 2h 16m 6s
8. Michael Wardian (USA)
   - + 2h 17m 23s
9. Aurelio Antonio Olivar Roldan (Esp)
   - + 2h 23m 24s
10. Julio Gomez Camacho (Esp)
    - + 2h 33m 36s
DRIVING THE RECOVERY

The global credit crisis has led to a full-blown recession in the world’s principal economies. But while the logistics industry will be affected, it could also offer a way out.

Words by: Dr Iyad el-Anis, Nottingham Trent University
While the global economic recession has hit every industry, the logistics industry is specifically vulnerable to the impacts of an economic slowdown. As the US economy, the world’s largest trading partner, slows, demand for goods and services from suppliers in Asia and Europe has also plummeted. If America is not buying, the others are not selling – and international trade, facilitated by logistics, is at a standstill.

Logistics is now an essential part of virtually all forms of business activity, whether it is the delivery of parts to an assembly line, warehousing, or the software used for the integration of stock inventories. It is a time-sensitive channel in the supply chain and, as such, it is on the frontline in the battle to recover the international economy. Indeed, the state of the logistics industry is actually a better barometer of what is happening in the economy than most other economic indicators.

For instance, air freight volumes decline as demand for express goods and international trade begins to slow. International air freight was down in 2008 by 4 per cent over 2007, but December 2008 was 27 per cent down over the same month the previous year – the worst monthly decline in more than a decade. Marine freight has also been down since early 2008 – prior to the international economy fully encountering recession.

The global financial situation has forced a broader economic recession characterised by a general slow-down in international trade and economic growth. It all began with the sub-prime mortgage crisis in the US housing market, and eventually resulted in inter-bank credit drying up across the globe. The flow of credit to businesses – so essential to the smooth running of the global economy – ceased, and with no way to finance their supply chains, businesses began cutting production – the final piece of the recession puzzle.

In the modern international economy, confidence needs to be restored until capital begins to flow at a rate that will meet the demand for it. The massive stimulus packages announced by President Obama, as well as major state funding announced in Europe, have raised hopes that we may start to see the signs of recovery by this summer. Such packages were directed both at government-funded large-scale infrastructural projects in the US, and multi-billion dollar deposits with the banks at the heart of the crisis.

The motivation behind these huge state bailouts can be found in the lessons learned from previous economic recessions. But the current economic recession is very different to those of the early 1970s, 80s and early 1990s – and no single policy has ever been proven to have resulted in a recovery. So far, the major financial institutions do not seem to be loosening up credit just yet, even though respective governments have strongly requested them to do so.

The result should be an increase in lending, which can be a successful policy as capital supply meets business demands in a manner profitable to both banks and borrowers. It’s argued that this should then restore confidence in the global economy, increasing the willingness of banks to lend more liberally and to do so in a timeframe that meets the needs of businesses. The global economy’s reliance on credit, while risky, is in theory not difficult to maintain if there is confidence that capital will not be lost.

Can logistics lead the recovery?

Due to its role in ensuring the efficient delivery of products and services, the logistics industry is central to building confidence. Business activities, in general, tend to improve in efficiency and productivity over time – due in large part to logistics and their technical components. The global logistics industry is a good example of one that continuously strives for efficiency and an improvement in services. Both can drive growth, especially in those industries reliant on international trade. Therefore, the decreased operating costs and increased profitability that efficient logistics can give businesses are even more vital in the current environment. Of particular importance is the impact that the development of software programmes used in logistics services is having, as are new advances in logistics administration.

Historically, businesses and industries which have recovered most successfully from an economic recession have been those that invest in innovation during the downturn. Decisive action to drive down costs, improve efficiency and stimulate business demand through improved products and services are essential for recovery. As the health of any international business is effectively based on the frequency with which orders are placed, goods and services delivered and the profit margins that are achieved, logistics should be the target for investment in 2009.

Of course, levels of international trade and business activities have been decreasing since late 2007 and will continue to do so in the short-term. Changes in currency values – the rapid depreciation of Sterling, the rising value of the Yen and the persistent weakness of the US Dollar – have further suppressed the international exchange of goods, services and capital from above. Logistics can support the rejuvenation of international trade levels, and the return to pre-recession levels from below by lowering prices, improving products and services and building buyer-confidence as well as producer capacity. This in turn will assist a re-balancing of the key currencies.

**“The decreased operating costs and increased profitability that efficient logistics can give businesses are even more vital in the current environment”**

Final delivery

Until these imbalances are stabilised and investor confidence restored, business activity and international trade will remain hindered. The global logistics industry will thus continue to suffer some short term loss of business. However, the economic slow-down should be overcome as investor and consumer confidence is restored, global economic activity begins to increase and the velocity at which capital moves around the global economy increases again. The logistics industry should be well-placed to endure a short-term decline in demand for its services and will play a critical part in accelerating the upturn out of the recession. Provided, that is, it can continue to innovate and efficiently facilitate the delivery of goods and services.
HAS THE PENNY DROPPED?

E-commerce has shaped a new era for retail and logistics – but it might take the global recession to complete the process.

Of the myriad benefits offered by the wholesale penetration of the internet into our lives – instant, unlimited communication, an enormous information resource, etc. – there’s little question that the World Wide Web has revolutionised one area more than any: shopping. The laborious task of trudging around malls and up high streets to hunt down a new pair of shoes, that much-hyped book or a last minute birthday gift, which was restricted both by your own enthusiasm and the choice provided by the local retailers, was swept away by the dot.com revolution of the late 1990s. The stock of every web-friendly company on the planet was suddenly only a mouse-click away, and the armchair convenience of buying and receiving your goods was compounded by lower prices, as specialists like Amazon replaced costly town-centre retail space with warehouses and delivery trucks.

The statistics tell their own tale. In 2008, according to Forrester Research, e-commerce accounted for 4.5 per cent of all retail sales in the US – or $204 billion spent online on consumer products by Americans in a single year. In the current economic downturn, moreover, price-conscious customers – with the ability to “shop around” without burning a drop of petrol – represent an entirely new challenge. Indeed, the emergence of comparison sites, so-called “shopbots” that harvest offers on a single product from many stores, is a clear sign that price is becoming a big factor in retail decisions.

The trend is likely to only accelerate in the current climate: insolvency experts Tenon Recovery suggest that UK retailers without an e-commerce service are 30 per cent more likely to fail in the recession, while Capp Gemini’s e-Retail Sales Index showed a 19 per cent increase in online purchases during January of 2009 compared to the same period last year. Foxbusiness.com believes that e-commerce is the second biggest winner in such times of economic distress where winners in any business are hard to come by.

So, the worst of times globally might just be the best of times virtually, with e-commerce able to claim a vastly expanded market share. “When you have the option to buy an item from any part of the world you are eliminating any chances for monopoly and assuring access to multiple vendors and the best prices,” says Iyad Azab, CEO of e-commerce facilitator Tijari.com. “We aim to be a portal to facilitate that opportunity.”

Narrowing the gap

In many countries, traditional obstacles continue to delay the expansion of online transactions. Internet penetration may have increased, but awareness remains scarce. “When I say ‘electronic purchase order’, it doesn’t mean I made a purchase order, scanned it, and attached it to an e-mail,” says Iyad. “Making people aware of how to automate the way they do business will improve efficiency – and is essential to the future of e-commerce.”

Zaid Nadhim, sales manager of Unnecessary Necessities, which offers e-commerce solutions under the slogan “online shopping simplified”, agrees. “We still need to feed our clients the concept of online shopping, what it means, what they need to do, and encourage them to make use of it,” he says.

The growth of e-retailing, however, will rely on more than convincing clients to trade their shopping carts for virtual ones. In theory, shopping from behind a computer screen sounds like the epitome of accessibility, but once customers start considering credit cards, online fraud, customs and shipping – e-commerce’s lingering issues – they will still opt for the car and the closest mall. “Coming up with ideas to introduce new payment methods, delivery systems and customer reports are extremely important for us to enhance our online sales,” says Zaid Nadhim. “We are offering our customers alternative payment methods like ‘Cash on Delivery’ since credit-card penetration and security remain big problems. Solving them will grow e-businesses.”

Delivering the promise

Rather like the Gold Rush of the 1840s, it’s not the prospectors who will strike it rich – it’s the companies who provide the picks and shovels. In the e-commerce generation, the shopping portal is nothing without the logistics capability to facilitate it. And that’s where innovative projects like Shop & Ship, a service provided by Aramex in more than 20 cities across the MENA region, South Asia and Europe, come into their own. “We simply provide our client with a mailbox in the US and another one in the UK to use when shopping online,” explains Iyad Kamal, Chief Logistics Officer at Aramex. “And when packages reach that mailbox, we re-ship them directly to the client’s doorstep.”

Aramex also guarantees an end-to-end delivery process – saving the customer the unique joy of spending a day in the customs warehouse. “Our service will handle the whole delivery process, even when it arrives to the customs department,” confirms Iyad Kamal, “whereas purchasing items from vendors that deliver directly to people will mean either an added cost for tariffs, a delay in the delivery, or even not passing through the customs.”

With increased security measures, increased reliability, solutions to both payment methods and delivery, and at lower prices with unlimited options, the mega-mall could be facing the same destiny as print media. The only question is are people ready to give up the joy of driving around for hours to find the right product for a mouse-click and a door-bell ring?

ecoshipping

The growth in e-commerce might have affected retail – and for the environment, that’s a very good thing.

A recent study by US Carnegie Mellon University showed that using and stocking traditional shopping retail outlets generates 65 per cent of total carbon dioxide – or greenhouse gas – emissions.

The same study showed that of that 65 per cent, two-thirds come from the consumer simply getting to the store.

Online shopping of physical products consumes 80 per cent less energy than the traditional shopping method.

A study by France’s Beauvais Consultants found that greenhouse gas emissions from “final transport” to retail stores amounted to as much as 1.1 kg of CO2 gas for each $135.80 worth of purchases.
Times they are a-changin’

Music files are now bought, sold and distributed over the internet. What does that mean for the physical CD, the music store retailer - and the logistics company distributing them?

Words by: Patrick Mascall
When Les Paul plugged his prototype electric guitar into an amplifier and let it wail, the music industry changed forever. On that day in 1941, not even Les Paul himself could have predicted the seismic influence his little wooden invention would have on the remainder of the century. Since then, the industry of recording and selling rock’n’roll has erupted into a multi-billion dollar business that sits at the very heart of modern culture.

Naturally, there have been other developments along the way: PA systems permitted live performances in cavernous arenas, synthesisers emulated the sound of entire orchestras and the quality and durability of the compact disc enhanced home listening. But these are mere blips against the giant spike of the digital revolution in the first years of the 21st Century. Music now flows across borders like water, restricted only by rights rather than logistics, and rather like Les Paul’s early experiment, it’s impossible to predict the full extent of the impact.

For decades, major record labels had exclusive control of the dynamics of the music market. They decided what we got to hear, how we got to hear it, and what we had to pay for it. Recorded music was a physical product – singles or albums sold as LPs and later CDs. For instance, have you ever wondered why there are around 11 songs on the new album you’ve just slotted into your CD player? It’s because that was how many tracks could physically fit on a 33rpm vinyl record when the idea of bundling songs into “albums” was first dreamed up 60 years ago. As that’s how the industry supplied the music, that was how we would have to buy it.

But when the internet emerged in the early 1990s, everything changed. Sharing digital music files was one of the web’s earliest applications for consumers, and the instant exchange of files – for free – suddenly threatened to undermine the traditional business model. The monolithic record companies fought tooth and nail to prevent this brave new world from taking hold as file sharing software like Napster and Kazaa enabled easy MP3 exchanges across the entire planet. The panic was that no one would ever pay for a CD again.

In the early 2000s, in an early show of defiance – if not of outright desperation – Napster and its ilk were forced to shut down as the industry tried to convince itself and the wider world that it was bigger than this new format. But after suing some 35,000 music fans for illegally downloading songs, industry leaders realised the digital tide against them was more of a tsunami. Understanding that access to music now overrode ownership of it, they joined the process of selling MP3 files – online or in stores – and it became the new market paradigm.

“The Great Unbundling” is how the Wall Street Journal’s L Gordon Crovitz referred to this digital phenomenon. “Digital technology [gives] consumers the power to pick and choose what we want, how we want it, and when and where we want it,” he said. “Instead of buying an 11-song CD, people can download one favourite. Instead of owning physical CDs, we own access to digital copies. Instead of having to use a stationary stereo, we can play songs on our MP3 players, phones or laptops.”

While the initial response from the industry was slow, labels learned that people were still willing to pay for what was otherwise free – albeit illegal – provided it was convenient, well-packaged and reasonably priced. Riding this wave, Apple launched the pioneering iTunes Music Store in April 2003. Boasting some 70 million songs by the time of its first anniversary, it instantly proved the viability of online MP3 retailing, and it wasn’t long before iTunes and its respective spin-offs began denting the market share of traditional formats. By 2006, downloads accounted for 10 per cent of global music industry sales. By 2008, that figure had reached 18 per cent, and a new study by Forrester Research predicts that digital music sales are expected to grow to 41 per cent of the total music market by 2013.

Driving the metamorphosis

The MP3 player, and more specifically Apple’s market-leading iPod, are at the heart of this change. A 2006 survey carried out for International Federation of the Phonographic Industry (IFPI) found that “portability is a key driver of growing demand for recorded music”. Look at the facts: the largest brick and mortar music store can stock a maximum of 150,000 CD titles – or roughly 1.65 million songs. iTunes, though, offers more than ten million songs, 24 hours a day, without users having to leave home. A mammoth six billion songs have been downloaded via iTunes during its six-year lifespan, accounting for 70 per cent of worldwide on-line digital music sales. Apple, an entirely digital offering, is the world’s leading music retailer.

“It’s great for artists,” says Tim Howar, lead singer of London-based rock band Van Tramp, who ditched the idea of sourcing a big-label deal in favour of digital self-releases. “People are using the internet to discover music, so you no longer have to rely solely on radio to get heard. If someone stumbles across your songs and they like them, they can buy them with a couple of clicks.”
“There’s a lot of positivity in the music industry. We’ve had to move with the times to meet the consumer’s needs, but that applies to everyone”
“Music is an impulsive, emotional art form,” he continues, “and if someone reacts to a song, as the artist you want to be able to capitalise on that impulse there and then rather than have to wait for them to visit a store a day or two later. On the downside, of course, people can also rip the fruits of your labour without paying a penny. But the way I see it, if we make a new fan who then buys tickets to our shows down the line, I can’t complain.”

But what does the vaulting popularity of this space-saving, scratch-proof, effortlessly portable and instantly accessible format mean for those at the traditional end of the spectrum? Is the end nigh for the CD and the record store – and the entire sub-industry of distributors, promoters and in-store promotion professionals? Looking at the recent sale of Virgin Megastores and the bankruptcy of Zavvi, their purchaser, it’s far from rosy.

“Music sales overall are about the same as they were this time last year,” says Christine Atkins, Director of Global Physical Production at Universal Music Group International. “The product that’s been killed is the physical single. That’s almost dead. With a top selling single today, you might sell 5,000 physical copies but you could be doing over 70,000 as downloads. As a result, labels have cut back on doing any physical singles at all. But a single now is simply a marketing tool for an album, anyway.”

“The irony is that singles are selling more than they have done for years,” says John Hirst, Rock & Pop Manager at HMV, the UK’s only remaining CD retail store chain. “But that’s down to downloads along with shows such as X Factor that push a certain song. I’d say around 95 per cent of a Top 40 single comes from download sales – it’s almost become an exclusively digital format. People only want the one track and it’s $1.39 on iTunes whereas it’s $5 for a CD single – and we’re the only ones left selling them. So it’s not a surprise how quickly they’ve died.”

How to make money from music
But what about the CD album? Are people still willing to pay higher prices for collections of songs already chosen for them? The decline of the traditional high street record retailers suggests not. “The majority of people who buy albums are still buying them as physical product,” says Hirst. “The digital sector is rising but it’s nowhere near the immediate shift we saw on singles. The Take That album came out in December and did 400,000 physical copies in the UK in week one alone. If the product is right and the price is right, people will still buy the physical version.

“I don’t think what happened to Virgin was simply a reflection of declining CD sales,” he continues. “Unifi-wise, the sales are still there, it’s just that the average selling price of a CD has dropped and some companies have successfully changed their business models – others haven’t.”

HMV’s model is three-pronged – online, in-store and download. As well as ordering physical product, you can buy iPod-compatible MP3s online. They also bought 50 per cent of Mama Group, a music promotion company that owns some of the best live venues in the UK. “There seems to be a lot of positivity in the music industry,” says Hirst. “It’s not all doom and gloom at all. It’s just understanding that you need to diversify and working out how you need to do that. We’ve had to move with the times to meet the consumer’s needs. But that applies to anyone.”

“What has changed is that we are now doing more and more special packaging,” says Christine Atkins. “Even in this digital world, people still want a physical product but we have to compete a bit harder now, so the nicer you can make a CD, the greater the likelihood of someone going out to buy it.

“To a degree we might end up servicing the niche markets who will never really go digital,” she adds. “But I still don’t believe that every single music buyer will want to buy solely into the digital age. There are still a lot of people – both consumers and those within labels – who want a piece of physical product to play in the car or to have at home. In the future, who knows, but certainly for the next year or two we’ll still be doing the same volume of physical CDs as we did six months ago. Physical isn’t going away as quickly as people think.”

So what can we conclude? Will the epochal predictions of the academics play out to the extent that CDs will be collected like vinyl in years to come? Or will the likes of Christine Atkins and John Hirst still be supplying and selling physical product by the lorry load to our children? If, as per the current debate, download pricing is significantly reduced in keeping with an offering that doesn’t need to be manufactured, stored and delivered, then no amount of special packaging will be able to prevent the CD’s days from being numbered. But on whichever scenario you choose to place your money, there is no question that a rapidly digitising world has re-drawn the music business’ time-honoured blue-print. The Industrial Age has made way for the Information Age and as when those first notes echoed from Les Paul’s amp, music will never be the same again.

Radiohead
British band’s digital release signalled the completion of the online revolution
It was perhaps the most conspicuous sign of a change in the recording industry. When Radiohead, one of the world’s most successful recording acts of the past 15 years, parted ways with their record label, EMI, at the end of their six-album contract they simply rejected the notion of using a label ever again. In what New York Times’ columnist Jon Pareles called “the most audacious experiment in years”, the band released their In Rainbows album as a digital download, even allowing the fans to select how much they wanted to pay. In October 2007, the band initially wanted a way to allow fans to hear the album before buying it – but without it being leaked to MP3-sharing software like LimeWire, or having the critics voice their opinions first. The idea soon morphed into the pay-what-you-like approach for the entire album, delivered as a Zip file, and although just less than half of all purchasers of the album paid nothing, the average price per consumer was around 98c – which on the reported sales of around three million, represents a far greater share of the profits going directly to the band than they would have enjoyed with the traditional label-plus-retail approach. Indeed, the revenues from pre-sales alone out-stripped the entire profits from their previous album, Hail to the Thief.

Also demonstrating the new paradigm for consumer desire for physical product, the band released a specially-packaged box set with giveaways and extras – of which they sold more than 100,000 at a price of $85. All in all, In Rainbows reached number one in the UK and the US, and won two Grammy Awards. Not exactly birth pains, is it?
Behind the Scenes

The Explorer takes a look at the extraordinary logistical solutions to humanitarian problems.
The recent crisis in the Gaza Strip, which moved hearts and stirred consciences across the Arab world, also highlighted the vital role that corporate entities can play in contributing to the alleviation of humanitarian crises. Following the first strikes in Gaza, the region saw a massive outpouring of support from both individuals and companies. As in the past, Aramex was at the forefront of humanitarian initiatives through its resulting campaign “Deliver Hope to Gaza”.

As a result of strong support from all sections of the community, what began as a tragedy in one part of the Middle East quickly evolved into an unprecedented act of unity across it, encompassing the wider Arab world and the global community at large. This extensive show of solidarity and support worldwide created an immediate need to act collectively and swiftly in order to channel the public’s energy, ensuring that the material aid and moral support for the embattled population was delivered efficiently.

In Jordan and the UAE, Aramex was at the forefront of harnessing this energy through its “Deliver Hope to Gaza” campaign, which was launched within a matter of days of the tragedy unfolding. The aim was to collect donations of blankets, clothes, food and electrical equipment gathered at key locations across major cities, and then use Aramex’s core expertise to efficiently deliver and distribute those goods to those in need in Gaza.

With an emphasis on word-of-mouth awareness, volunteer activism and its own retail and logistics skills, Aramex was able to successfully convert the positive burst of energy across the region into actual commitment and action on the ground. “As a mother, watching little kids on television devastated by the strife around them, I felt it was my duty to volunteer to help in whatever way I could,” said Widad Raad, a Palestinian-American living in Dubai, who immediately lent her support to the effort. “It is one thing to watch the damage and destruction unfold on television and feel empathetic, but quite another to use that energy to positively lend whatever help you can through an initiative like this.”

The tragedy in Gaza triggered an incredible outpouring of support across the Middle East - and Aramex was at the heart of harnessing this generosity.
Creating awareness
As the tension in Gaza continued to escalate, Aramex needed to act quickly. Once it had created the programme, it needed to communicate the objectives of the campaign in as little time as possible. In Amman, it was felt that the massive popularity of blogs and social networking sites was the best way to circulate the message to socially conscious Jordanians who wanted to help. Aramex went about creating a movement of grassroots activism that sought to empower individuals.

Key blogs such as the Black Iris, iToot and 7iber, as well as microblogs like Twitter and Watwet, were used to spread the word, giving out details of drop-off points that Aramex had identified, and then set up, in cooperation with leading malls in Jordan. As a result of this strategy, within 24 hours the “Deliver Hope to Gaza” campaign inspired kilometre-long queues outside Cozmo supermarket and Aramex Media outlets.

The approach in the UAE was similar. More traditional media were used at the outset, with press releases sent out to leading newspapers and broadcast media, which were then followed up by interviews. SMS messaging and e-mails were also used as part of a comprehensive outreach strategy. Visibility at the malls – areas of massive traffic in Dubai, Sharjah, Ajman and Abu Dhabi – ensured a strong response. Radio stations such as Dubai 92 and Dubai Eye supported the initiative with regular announcements and bulletins about the campaign. This helped sustain the effort beyond the initial flurry of activity.

The Dubai Chamber of Commerce was also among the many organisations that helped circulate Aramex’s campaign details to their local databases. “We received and handled hundreds of enquiries, from big corporations to private schools, who wanted to contribute. The response to the campaign demonstrated the unity among the diverse communities of the Emirates for a noble cause such as this,” said Ahmad Marie, the Operation Director and an active member of the campaign team. “In the Mall of the Emirates, a Korean woman with no knowledge of Gaza went out and bought a mountain of blankets. She said ‘I do not know what kind of food Palestinians eat, but they will need them.’ One Emirati man simply went to a pharmacy and asked the assistant to fill up his basket with first aid kits he thought the Strip’s citizens might need.”

Sorting aid
While the campaign was built around people’s compassion and energy to support the cause, it wasn’t simply about asking people to donate. A vital element of the campaign was the recruitment of an army of volunteers. Helping in a crisis is more than providing material aid; it is equally important that people are willing to dedicate their time to ensure the campaign achieves its goals. Within days of announcing “Deliver Hope to Gaza”, in excess of 600 tons of goods were collected in both the UAE and Jordan. Collecting the donations, however, was merely the first part of the process.

Ahmad al-Saber was operations supervisor for the UAE, which was based in Aramex’s land...
freight terminal in Al Aweer, Dubai’s principal industrial district. Ahmad’s initial task was to receive the country’s volunteers at the facility, break them up into groups, and brief them on the guidelines of sorting the donations and then packing them. Teams in Dubai worked from 10am until midnight to ensure that all the donations were collected.

The atmosphere in Jordan was no different. “When the campaign started, one of the members of the Action Committee offered to store the collected items in his house,” recalled Zaid Najjar, the Aramex senior operations supervisor in Amman. “But when we saw the tremendous amount of goods we were receiving, we realised we would need the services of our warehousing and logistics operations. It quickly became an operation of incredible proportions.”

At the Aramex logistics centre in Amman, armies of volunteers gathered to sort and pack the donations in specially built marquees. “In the first few days there was a simple production line with maybe ten volunteers. We’d sort the items, remove anything unsuitable, shrink wrap and send them,” Zaid said. “But when we learned there was a problem with the distribution in Gaza, the volunteers developed “Al-Khair” – packages of goodwill – in which they placed essential supplies for a family of five. We formed two 12-metre lines of pallets. One side had the collected items and the other had empty boxes marked for each required item. There would be 15 volunteers at a time, moving between the two lines separating the items. We had six such lines!

“Another group of volunteers would take over the packaging process, using the shopping list to fill the packages,” he adds. “It was like a beehive!”

“Everyday, when we arrived, we were met with a full warehouse,” said Widad about the process in Dubai, which completely took over Aramex’s land-freight facility. “It was truly inspiring because it meant that so many people wanted to help and that the donations were still coming in strong. The thought of all the suffering in Gaza made us more motivated to tackle it, and keep coming back day after day. In fact, most of us were in a sense saddened when the campaign ended.”

Empowering people

Besides fulfilling social responsibility functions, the “Deliver Hope to Gaza” campaign harnessed a number of key operating capabilities within Aramex, including overall branding, media awareness and PR, the recruitment of volunteers and, ultimately, the logistical expertise to facilitate the aid delivery.

As the Hashemite Commission Convoy departed Jordan with the aid, it was clear that “Deliver Hope to Gaza” had exceeded all expectations – not simply in the amount of donations it generated, but in the coordination and collaboration between a wide range of groups, from corporations to media outlets and the blogging community to the society at large.

There were also several valuable lessons learned that will serve Aramex well should other such campaigns be launched. However, in terms of the goal, the ability to harness the overwhelming concern of the citizens of two of the region’s biggest cities was unprecedented. It also demonstrated the possibilities of effective networking at a grassroots level and the power of conscientious companies in carrying out such campaigns. “The best part of the campaign,” as Widad put it, “was that people could donate items or they could volunteer to assist on ground – or they could do both. No matter what kind of contribution they made, it was hugely fulfilling.”
After his staggering achievement at the Olympics in Beijing, when he shattered world records in both 100m and 200m, how fast can Usain Bolt go?

Words by: Owain Jones
USAIN BOLT VERSUS THE ANIMAL KINGDOM

Peregrine Falcon | 320kmh (diving)
Cheetah | 110kmh
Coyote | 70kmh
Giraffe | 51kmh
Usain Bolt | 43.45kmh
Squirrel | 19.5kmh

On August 16th, 2008, Usain Bolt crouched down into the sprinter’s customary position on the blocks, his hips more elevated than his rivals’ and his fingers spanning the white starting line. Suddenly, he looks up, focusing his gaze into the distance and, as the starter gun echoes around the stunning Bird’s Nest stadium in Beijing, he explodes into action. Less than ten seconds later – a world-record-shattering 9.69 seconds, to be exact – he crosses the finish line, arms outstretched to celebrate Olympic gold. And in leaving the seven other athletes in his wake, five of whom ran under the iconic 10-second barrier, he had made history. It was, even more incredibly, only his ninth competitive race over 100 metres.

In all the exuberant celebrations in the aftermath of the race, with Bolt kissing his golden spikes and posing in front of a stadium clock, locked on that seemingly impossible time, the disbelieving global audience and a bewildered media were left to consider another element to this achievement – Usain Bolt had, in an Olympic final, actually eased up 15 yards from the line. It was a seminal Olympic moment, rivaling Bob Beamon’s leap in the long-jump in Mexico 1968, Mark Spitz’s eight swimming golds or Carl Lewis’s quadruple track and field success in Los Angeles. And it didn’t take the internet forums and media long to start wondering out loud: what if Usain Bolt ran the 100m all the way to the finish, as he had in his favoured 200m, picking up gold and Michael Johnson’s 13-year-old record of 19.30 seconds.
Given the magnitude of Bolt’s achievement, within months, a thesis was published in *New Scientist Magazine* calculating that had Bolt not decelerated, he could have run the 100 metres in 9.52 seconds. The scientist behind the research, Dr Hans Eriksen of the Institute of Theoretical Astrophysics at the University of Oslo, Norway, described how he and his colleagues had used television footage of the race to try to work out his potential speed. The scientists, who normally tackle cosmology problems, assumed that because Bolt was so much faster in the first eight seconds, he would have clocked a figure closer to 9.55 seconds.

Not one to cast such scientific claims aside as fanciful conjecture, the Bolt camp, through head coach Glen Mills, concurred that Bolt is merely at the start of his 100m career and would peak in two years. “If he had continued, the slowest he would have run would have been 9.52,” said Mills. “This is his first year of running the 100 metres and in two more years he should be peaking at this distance.”

The question the athletics world is now asking is how fast can he run in 2009? Bolt probably accepts he has some serious hurdles to overcome; firstly, not getting injured, maintaining his confidence and then, probably the biggest challenge of all, managing the incredible expectations he has fostered. Many grizzled athletics insiders believe 2008 will be a tough act to follow after such an incredible breakthrough year. Darren Campbell, an Olympic silver-medal winner at 200m, admits Bolt’s run had left him speechless. “First and foremost, I’ve never seen anyone so tall run so quickly – and get all the technical aspects of sprinting right,” he says, before admitting to another, altogether darker thought that crossed his mind as he watched the race unfold. “For those in the know who watched it, they’d have thought, he’s got to be on something – especially because of the problems sprinters have had in the past, like with Ben Johnson in Seoul in 1988. But I disagree, having gone through the whole Olympic drug testing procedure myself, if he had been on anything, it would have come up. It was simply a stunning performance.”

Campbell is sure Bolt will undercut his own current world record at some point in the near future, and maybe in a year without all the Olympic hype. “Sure, he can go quicker than 9.69 seconds,” he says, “but I’m not sure how much quicker. The fact that he stretched out his hands at the end of the race meant he was totally relaxed – which is what you need to be to run that fast – so I’m not sure how he would have actually lost more than a couple of hundredths of a second. The harder you try the slower you run. He’ll need to feel challenged to push his own boundaries. In the Olympic Final, you had the feeling that he had the race sewn up before it started. He knew he could catch, and stay in front of, anyone in the field.”

Campbell believes that sprinting is going into uncharted territory with Bolt. “Usain’s in great shape. At 86kg, his power to weight ratio must be nigh-on perfect. Sprinters work on bulk, but also stride length. Stockier
sprinters get out of the traps quicker and hope that taller guys won’t be able to keep the relaxation needed to catch them. Unfortunately for his more vertically challenged rivals, Bolt has it all.”

Paul Halford, the deputy editor of Athletics Weekly, is another expert whetting his appetite at the thought of Bolt lowering the world record. “It’s hard to see him going much faster this year, but then again, who could have seen what he did in Beijing.” If Bolt does anything extraordinary, Halford feels it will be at the 2009 World Championships in Berlin. “If he’s going to do something special, it will be there, but he will need to be pushed by guys like Tyson Gay and Asafa Powell, or whoever is the form runner this season.”

Nature versus nurture

While looking forward to what Bolt can achieve in the future, to understand how a sinewy Jamaican dancehall boy became the fastest man on the planet, you have to look back to his upbringing. In the continuing nature-versus-nurture debate, it is clear both have played a part in Bolt’s progress. On the nature side, his very birthplace gave him a statistically better chance of becoming a sprint star than the majority. He comes from Jamaica, an island with less than three million people, but to which 20 of the world’s top sprinters are ethnically linked – and DNA tests have confirmed that 98 per cent of Jamaicans share the “power-sprinting” gene. Bolt’s body make-up is also in a special category, with his leg muscles predominantly of the fast-twitch type fibres, a high percentage of which are actually super-fast switch fibres, which are found in only two per cent of people. Jamaica itself is a vibrant island where outdoor life and a love of sport are ingrained from a young age, where young boys either want to be cricketers or sprinters. In fact, Bolt idolised West Indies cricket captain Chris Gayle and had to be coerced into choosing sprinting as his main sport. The island, though, regards sprinters in high-esteem and a source of national identity. Bolt’s rival, Asafa Powell, owns six cars and has been awarded the country’s Order of Distinction. In addition, you have British and Canadian sprinters such as 1992 Olympic champion Linford Christie, double gold-medal winner Donovan Bailey and the subsequently disgraced Ben Johnson – all of whom had Jamaican roots.

Campbell, also from a West Indian background, agrees Bolt has many factors on his side when it comes to running, very, very fast. “If you look at the top sprinters, they tend to come from Caribbean parentage. My parents are both West Indian. Sprinting is about rhythm and Bolt has that in spades. He’s also had the right people nurturing him as a young man and a technique that has had time spent on it.”

By 12, Bolt had become the fastest 100 metre runner in his school’s history and his aptitude meant that while attending the William Knibb Memorial High School, he had the expertise of former Olympic athlete Pablo McNeil and experienced coach Dwayne Barratt to harness his natural athletic ability. By 15, Usain had grown to a height of 1.96m, and won the world junior championships in the 200m with a time of 22.04. At 16, the sprint prodigy was reaching times that his hero Michael Johnson didn’t hit until he was 20. Unsurprisingly, Bolt’s phenomenal speed reached US colleges who offered Bolt track scholarships. Bolt, however, resisted all overtures stating that he “wanted to continue training in his homeland”.

The mechanics of sprinting

Despite being fast, when Bolt first took up track, he suffered from the usual tall man’s maladies and injuries. Tall and gangly, he was not the best starter or bend runner. His coach sped him up by shortening his stride. “His body placement was not ideal for sprinting,” Mills said. “His knees were well back, his shoulders were well behind his centre of gravity, and this resulted in him spending too much time in the air and over-striding.”

Now, Mills says his length of stride is compatible with his height. One of the reasons he has such a long but efficient stride is because he lifts his knees so well. Mills realised his talents needed careful guidance as his frame developed in order to accommodate the workload required.

Frustratingly, Bolt has a laid-back attitude to training, plus a liking for practical jokes. He even boasted he had a double helping of chicken nuggets just hours before his Beijing run, though his coach confirmed that the joke had been extremely focused in the run up to the Olympics, spending the off-season weight training harder than ever and refining his starts. “He got bigger and stronger,” said the ever-loyal Mills. “He trained more diligently in practice and when he began running, the times were no surprise.”

Despite obvious natural gifts, Bolt still breaks the模板.Traditionally, height has been seen as a detriment to sprinting; short, squat physiques of Atto Boldon and Maurice Greene were more familiar for the sprints as they used power down the straight rather than a glide. Any good formula for speed is stride length multiplied by stride rate, and Bolt seems to have both.

At nearly two metres in height, Bolt’s first few strides are almost staccato as he seeks to generate the necessary momentum. The toes of his spikes almost brush the ground as he drives his legs forward. There is little lift but after five strides he is almost at full extension. Twenty metres into the race and he is level with the best starters. After that, the combination of leg speed and stride length becomes unstoppable. The average sprinter takes 48 strides over the 100m whereas Bolt takes around 41 or 42, and his legs are moving as quickly as anyone’s. In the same way Ed Moses could take 13 strides between each of the 400m hurdles, the stride pattern gives Bolt a huge, almost insurmountable advantage.

Darren Campbell, now a coach to Premier League football clubs and elite athletes, agrees and says that Bolt, despite his somewhat irregular attributes, seems to work extremely well. “If you look at his history, he’s been a star in the making since the age of 15. His height is working to his advantage. Usually the taller they are, the harder it is to generate the power out of the blocks, so you find they are better at 200m and 400m. Bolt has unusually good co-ordination for such a tall man, as you tend to find taller sprinters have a little less control of their limbs.”

A sprint superstar the sports world is watching, is how Halford sums up the “Lightning Bolt” effect. “Usain has had an incredible impact on track and field. He’s the biggest star in our sport since Michael Johnson in the mid-1990s and he now has the potential to become one of the all-time greats.”
The Interview

Every issue, The Explorer meets a modern-day adventurer, someone embodying the spirit of discovery and the search for the unknown.
BEAUTIFUL SOUTH

Words by: Eddie Taylor
Less than a year and a half after conquering Mount Everest, the first Lebanese to do so, Max Chaya completed an unsupported trek to the South Pole.

It requires a trek of 1,130km across ice fields, snow-crusted hills and iron-hard crags known as sastrugi; temperatures never climb higher than minus-15 degrees, headwinds often top 25kmh, and over the 47 days of endless marching in white nothingness, the body will lose close to 10 per cent of its mass. This is what awaits any explorer seeking to reach the South Pole, and Maxime Chaya, a Beiruti sports shop owner who had already become the first Lebanese to reach the summit of Everest two years previously, was seeking to complete the task “unsupported”. This means that what he needed for the six-week trek, he had to carry; no dog teams, no helicopter supplies flown in halfway through, and no one to help him share the load of his sled. He had no one but his four fellow explorers for company.

Guided by Canadian Devon McDiarmid and accompanied by Evelyne Binsack from Switzerland, Brit Adrian Hayes and Norwegian cross-country skier Hans Foss, Max began his mission at the Hercules Inlet, Antarctica, having flown in from Punta Arenas in Chile – and ended it at the southern-most tip of the planet. Before he’d so much as taken a tentative step toward his goal, though, the severity of the conditions was thrown into stark relief.

“We stayed two very windy days at Patriot Hills, Antarctica, before we were given the green light to even start the expedition for real,” recalls Max. “The wind was a constant 50-60 knots, which meant it was impossible to set off. We were lucky in that we only suffered one broken tent pole while we waited; others in the Norwegian party had their tents ripped to shreds, and a South African guy had his tent blown away completely!”

But, as he recalled in his blog, which he updated daily, a journey of 3,000 miles begins with a single step, and on November 13th, 2007, he finally headed out with the team. Again, the conditions were harsh. “The surface in Antarctica was hard and unforgiving, with constant minor topographic changes between ridge and trough, which made pacing very difficult,” he says. “The sastrugi, the surface irregularities formed by wind erosion and saltation of snow particles, made travel very tiring, with the constant risk of breaking skis – and bones. To give an idea of the temperature, every breath formed yet another layer of ice on my cap! Thankfully, graffiti from my kids on my skis kept me company in the vast whiteness.”

Less than a week in to the trek, Max learned that Brazilian Julio Fiadi, who was attempting a solo crossing, abandoned his attempt and was evacuated. And as the winds picked up, Max was facing his own difficulties: having to battle not simply the elements, but the psychological pressures of the weight of days ahead. His biggest mistake, he concludes, was not anticipating just how harsh the climate and topography were going to be.

Moreover, the physical effort was compounded by his offer to carry additional weight from a teammate – meaning that his sled load never shrank, despite the use of food and supplies. “With every new day the terrain seemed to get harsher, the winds stronger, the ice colder, the sleds heavier,” he says. “And when we called the Patriot Hills Base Camp, the message came in loud and clear: the unrelenting winds wouldn’t, well, relent! When we crossed the 1st degree, though, we had managed to stick to our routine and actually increase our daily output to nine hours of skiing.

“More importantly, the morale was excellent,” he continues. “We weren’t individuals on the ice, each battling the indefatigable forces of nature on our own, but rather a living, breathing entity that is more than the sum of our individual selves. As we said every night: Our Unity is Our Strength!”

Coping in the frozen wilderness
Each of the team developed strategies for coping with the daily nine-hour treks, undertaken in convoy-fashion to lessen the energy used to cut new tracks in the snow and ice – making conversation impossible. For those who rely on an iPod to reduce the torment of a long-haul flight, you have to sympathise with Hans Foss, who thought he had left his MP3 player in his hotel. After nine days, though, he suddenly found it buried deep in a jacket pocket, and, once it had been recharged via a solar-panel, proceeded to air-guitar through the following morning’s hike – Queen’s “Bohemian Rhapsody” urging a three-minute pause for the guitar solo. For Max, it was basically a series of prayers: “For my family back home, for having warm fingers and toes, for the fact that everything’s okay. Other days, I prayed solely to ease the pain, and just get through the day.”

The team reached half-way on December 7th, and although the elation was profound...
Logistics of exploration

How to get from Beirut to the South Pole

1 Beirut to Paris
   Date: Nov 2nd
   Distance: 3,192km
   Method: Plane

2 Paris to Miami
   Date: Nov 2nd
   Distance: 7,349km
   Method: Plane

3 Miami to Santiago
   Date: Nov 3rd
   Distance: 6,657km
   Method: Plane

4 Santiago to Punta Arenas
   Date: Nov 4th
   Distance: 2,189km
   Method: Plane

5 Punta Arenas to Patriot Hills
   Date: Nov 11th
   Distance: 2,900km
   Method: Plane

6 Patriot Hills to Hercules Inlet
   Date: Nov 12th
   Distance: 30km
   Method: Helicopter

7 Hercules Inlet to S. Pole
   Date: December 27th
   Distance: 1,100km
   Method: Foot

cooking, though, he was pleased to admit that he wasn’t the best in the kitchen. With roughly the same diet of vacuum-packed noodles, chocolate and butter day after day, he knew who the best chef was: “This guy was better than a Three Star Michelin, and he’s not specialised in one cuisine, and can cook anywhere without a grumble. And you all know him: His name is hunger!”

Hit the wall

On the trek, each member of the team suffered at least one day where they completely hit a wall – and probably more like two or three. For Max, it was a combination of cramping muscles and stomach disagreements – and just when his body was on its last reserves of energy. In addition to fatigue, inflammation of joints and a growing patch of frostbite on his nose, he was “struggling to keep up the pace and feeling cold in my hands despite no change to my three-glove system.

“But I was more concerned about a sudden lack of power. I felt terrible, especially when we became engulfed in a snowstorm. In the evening, we called Dr Hans Christian, a veteran of polar expeditions. He said it was normal for a high level athlete as I had no more fat left – and was ingesting less calories than I was burning, so my engine decided to go on strike! I learned that one never goes on a polar expedition with a lean, mean body. The very nature of the expedition requires the opposite – stored energy. But what a lesson to learn with seven days still to go!”

“...I prayed for my family back home, for having warm fingers and toes, for the fact that everything’s okay”

amongst the team, it came amid some of the worst conditions – often with zero visibility. “I had to use a ‘wind ribbon’,” says Max. “Close to the poles, the wind blows from pretty much the same direction, coming usually from the pole plus-minus a few degrees. So, a ribbon is as reliable as a compass, and even in the whiteout, we were on course. But that meant traversing sastrugi that, with clear vision, we otherwise would have avoided.”

Max’s homemade survival techniques also extended to sewing up tears in gloves, hats and even boots, which inevitably occur in such relentlessly poor conditions. When it came to
Photographer, designer and artist Takashi Amano recently brought a collection of his landscape photographs to Qatar, his first exhibition in the Middle East. Mr Takashi showcased his work as part of his campaign to bring the effects of global warming to the world at large. “Global warming destroys our environment every moment of the day,” Mr Takashi says. “I want to leave images of such precious nature for the next generation.”

The collection, titled “SADO: A Natural Treasure of Japan”, was on view at the Qatar Photographic Society during the last week of February, and was made possible with the
support of the Japanese Embassy in Qatar, Aqua Art, and the special sponsorship of Aramex International’s Doha office. *The Explorer* speaks to the influential landscape photographer about his experience in the Middle East.

*Explorer: Could you tell us about the idea behind the exhibition and what inspired you to concentrate on the effects of global warming?*

*Takashi Amano: So far, I have been able to visit many African nations, tropical forests in the Amazon, Borneo, and West Africa, and photographed many landscape pictures with a large format view camera. Every time I travelled to these incredibly diverse and beautiful regions, I could easily understand the environmental changes. It became obvious to me as a photographer the necessity of sending a message to the ordinary people about the effects of global warming through my work.*

*Explorer: In your opinion, to what extent has global warming affected your homeland Japan, especially as a heavily industrialised country?*

*TA: The environmental/climate changes are very obvious in Japan. Many fauna and flora are on the edge of extinction, and many trees in forests are dying because of insect migration to more tropical regions in the south. The days when we can see clear blue skies are decreasing year by year.*

*Explorer: Do you think it is the duty of an artist to educate people about the importance of the environment? Is that your goal with this exhibition, or are you concentrating more on capturing the beauty of the environment?*

*TA: I definitely feel it is my duty as a photographer to tell people what is going on in our planet, and I like to use a large format view camera to record even the smallest details of the Earth’s nature – as records of here and now for the people of the next generations.*
Explorer: There are people who argue that global warming is a natural by-product of development and industrialisation, and we have to live with it if we want to prosper. What is your opinion?
TA: The ice in the Arctic region is decreasing at rapidly accelerating speeds, and this process is expected to hasten further because of global warming – or abnormal weather – around the world. We are now experiencing the strongest hurricanes, typhoons, draughts, floods and forest fires in memory. We can no longer pretend that the world’s people have no effect on the natural world. We must stop being wasteful now, or we will not have a future!

Explorer: As a photographer, what scene or landscape attracted you most in Qatar?
TA: The vast desert and the sealands, where desert meets the Gulf water.

Explorer: The people in the Gulf, especially children, might not know much about the many captivating elements of nature, such as greenery, rivers, mountains, snow, rain, etc. What do you think is the best way to introduce to them the nature that they are not familiar with?
TA: Environmental education is very important for children. I would suggest for schools to keep a “School Biotop”, where children can create a small natural habitat of fish/marginal plants/ insects and watch the living creatures grow. If you’re making something with your own hands, you are bound to become interested!

Explorer: How do you see the latest development in photography – particularly the rise of digital? Do you think the reduction in the use of film, dark rooms or even prints is a good thing?
TA: I think the recent development in photography is welcome, since people can enjoy taking photos more conveniently and share the images through the internet. But my photography, though, is not about handiness or easiness, because I believe
that only a large format camera can truly record the ambience of the landscape.

**Explorer:** And what about the impact of the internet on photography and file sharing?

**TA:** Again, it is a good trend. People share their images through the internet, and have a much larger audience to appreciate their work. This could not be imagined a decade ago.

**Explorer:** There are now several softwares available that can help manipulate photographs, but do you think that it will take the sheen and professionalism out of photography?

**TA:** In Japanese, photography is called “shashin” or “reflecting the reality”. It is my policy to not retouch any of my photos. Some people may want to increase the impact of their photography by manipulation, but it is not my taste.

**Explorer:** What is the best way to educate people on the importance of preserving nature, and what is the best medium for this education?

**TA:** It is important to show people how the environment changes “before” and “after” the destruction. People must face the reality in order to realise the importance of preserving the natural environment.

The article was written by Aramex Customer Services Manager Krippa Gireeshan. Krippa started with the company in December 2000 as Customer Support Executive in Bangalore, India, before moving to Qatar three years later as Customer Services Executive in the sales department. She has been in her current role since April 2008.

Takashi Amano’s photographs were all taken in the Momijiyama Park in the Sado region of Japan.
“People must face the reality in order to realise the importance of preserving the natural environment”

Takashi Amano
Twice a year, millions of birds make the prodigious journey from their seasonal shelters in the search for warm weather and food. How do they do it?

In the current world of high tech gadgetry, where over two billion people use mobile phones every day, the latest scientific discipline doesn’t come from stainless steel labs or computer screens. Instead, the newest inspiration for practical solutions in our everyday lives is the natural world.

Biomimicry – which comes from “bios”, meaning life, and “mimesis”, meaning to imitate – hopes to use technological ideas, designs and strategies from the animal kingdom and integrate them into future technologies. The greatest example of nature’s influence can be found in the inbuilt navigational ability of birds, which scientists are hoping to use in the coming generation of transport machines, GPS devices, and the like.

Birds who migrate seasonally and return to the same site each year are thought to possess some sort of genetically-based ability to remember the site and how to get there. Even newly-born white storks, who migrate through the Middle East to Africa for the winter season, successfully migrate back to their breeding grounds afterwards without the help of their parents, who usually undertake their journey before their offspring. The white stork, as well as the other 185 different species who cross the Levant every year, is thought to carry genetic information that allows it to remember their specific place of birth. Each year, once winter is over, the stork travels thousands of kilometres to return to the same area of his hatching.

While genetics play an obvious and important role in this skill set, the innate ability of migrating birds to know where they’re going must still rely on more earthly factors.

If the world’s geography changes constantly, for instance, such as with the coming and going of ice ages, how do birds’ navigation systems evolve? “Evolution primes birds to respond appropriately to ‘average’ conditions, but they must have the flexibility to cope with the perverse vagaries of the earthly environment,” Stanley Temple, professor emeritus of wildlife ecology at University of Wisconsin-Madison, recently told The Why Files online magazine.

Most scientists like Temple believe that part of this “inner GPS” includes the use of several mechanisms, such as actual landmarks, the positioning of the sun, star formation and even the use of geomagnetism. In the latter, birds are thought to sense Earth’s magnetic field and use it to navigate their way around the world, sometimes covering well over 100km a day.

“Most scientists believe that birds posses redundant systems, and they use the ‘best’ system for the prevailing circumstances,” Temple says, including himself in that grouping. “So, they utilise the highly reliable celestial systems when the sky is clear, but can also switch to less reliable systems, such as geomagnetism, when the sky is overcast. Thus, they are very good at navigating when the primary clues are available, but less accurate when they have to rely on ‘back-up systems’.”

So, the next time a gentleman in a crisp suit, standing over an impressive Power Point presentation, boasts of his latest GPS technology – using satellites, transmitters and microscopic receivers – just point to the nearest starling. Evolution gave the same gift millions of years ago.
Two hundred years after his birth and 150 after the publication of the landmark On the Origin of the Species, Charles Darwin and his observations on evolution remain a major source of controversy—yet have managed to withstand much subsequent scrutiny. The man who once pursued the priesthood after finding his father’s surgical career repulsive, profoundly changed the way humanity has come to view both disciplines—faith and the human body.

The work that defined his career started as an extended journal during a round-the-world voyage on HMS Beagle, and were, in truth, the notes of an amateur naturalist rather than a thesis from an accomplished academic. They eventually evolved, so to speak, into a fully-formed theory of evolution, one that emphasises the power of natural selection over the course of hundreds of thousands of years—in which species traits favourable for survival in certain environments become more common in successive generations of organisms. Species as we know them today, therefore, have been the recipient of infinite refinements to better fit their location.

Twenty years after returning from his five-year trip, and after exhaustive observation, evaluation and compilation of his notes—work that even lead to a temporarily accelerated heart beat—he was ready to publish On the Origin of Species by Means of Natural Selection, or The Preservation of Favoured Races in the Struggle for Life. The first 1,250 copies of the “abstract” printed in 1859 immediately sold out, with the clarity and accessibility of Darwin’s argument generating a wide readership.

Darwin’s approach and scientific method are such that he can rightly be considered in the same class as other pioneer scientists from Copernicus to Einstein. Even today, investigators equipped with sophisticated cameras, computers and DNA-sampling tools underline the continued vitality of Darwin’s study. His work is considered nothing less than a pillar for the modern science of evolution, raising hundreds of questions that continue to form the basis of both biological and genetic study. One book, compiled from one trip, has essentially created 150 years of scientific research. “Darwin completed the Copernican Revolution,” says Francisco J Ayala, evolutionary biologist at the University of California, “by drawing out the notion of nature as a lawful system in motion, which human reason can explain without recourse to supernatural agencies.”

Even with his health deteriorating in the last 20 years of his life, Charles Darwin continued to be an avid worker, determined to enhance his original abstract. While the pivotal On the Origin of Species avoided specific discussion of the thorny issue of human evolution, the subsequent The Descent of Man, and Selection in Relation to Sex (published in 1871) attributed human beginnings to simian forebears—a theory that offended many, and the distortion of which continues to contribute to ongoing misunderstanding of Darwinism. But a pioneer he remains, and with a scientific breakthrough that has forever altered contemporary knowledge about the origins, and the adaptability, of all animal life. “Darwin’s view of evolution is one of the founding principles of modern science,” asserts Hofstra University’s Daniel Rubey, “and crucial to our understanding of the natural world.”