

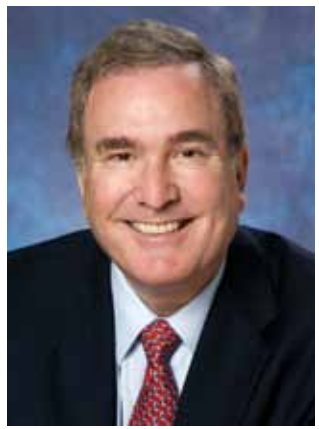
# 2009 STEWARDSHIP REPORT





SIMPLY PUT, WE MUST PROTECT THE MARINE  
ENVIRONMENT AND SUSTAIN THE WELL-BEING  
OF THE PEOPLE AND PLACES WE SERVE.

– *Richard D. Fain*  
*Chairman and CEO*  
*Royal Caribbean Cruises Ltd.*



At Royal Caribbean Cruises Ltd. (RCL), we know that there are many factors that contribute to our success, including our loyal guests, who inspire us to be the best at what we do; our enthusiastic and dedicated staff and crewmembers who keep our ships running smoothly, safely and securely; our beautiful, state-of-the-art ships that provide a home away from home for guests and crew alike; and the oceans and destinations that provide the setting for our remarkable voyages around the world. Because we couldn't be successful without them, we recognize that safeguarding our guests and crew and protecting the marine environment are core responsibilities that are vital to ensuring the continued success of our company.

This year's expanded stewardship report describes our efforts in these areas, with updated information on our environmental initiatives, as well as more detailed sections on our safety and security, and medical/public health programs.

Throughout these pages, you will notice two constant themes: Our company mandate to conduct our business *Above and Beyond Compliance* with existing laws and regulations, and our unwavering focus on *continuous improvement*. Through strict company policies and practices, cutting-edge technologies and effective, well-trained crew and staff, we strive to be leaders in innovation and practice in the fields of environment, safety and security, and medical/public health.

We are immensely proud of our accomplishments in all these fields, but in line with our company commitment to *continuous improvement*, we are constantly working to be better, to find the next new technology and reach even higher levels of achievement.

Through the dedication and innovation of our crewmembers and shoreside professionals, we work hard to safeguard our guests, crew and oceans. I invite you to read about these efforts in our *2009 Stewardship Report* and then join us aboard one of our ships to see our dedication in action.

A handwritten signature in black ink that reads "Richard D. Fain". The signature is written in a cursive, flowing style.

Richard D. Fain  
Chairman and Chief Executive Officer  
Royal Caribbean Cruises Ltd.



# EXECUTIVE SUMMARY

This *2009 Stewardship Report*, updated and expanded from our first report released last year, offers a snapshot of our commitment to and achievements in the areas of environmental stewardship, safety and security, and medical/public health. During 2009, our 38 ships carried nearly four million guests to over 400 destinations worldwide. With such a global reach, we recognize our responsibility to be good stewards of the environment on which our business depends, and to provide safe, secure and healthy experiences for our guests, crew and employees.

We think of our company-wide commitment to responsible stewardship as a journey, one that is embodied in our mandate of *continuous improvement*. We have made tremendous strides in the areas of environment, safety, security, and medical/public health, developing and implementing industry-leading policies, practices and procedures. Although we are proud of our accomplishments in these areas, we know that there will always be opportunity for improvement. Our dedicated and talented employees are constantly assessing emerging technology, evaluating new scientific developments, partnering with subject matter experts and considering novel approaches to existing challenges. In this report, you will see steps we have taken, as well as new paths we plan to take. We also hope you will find we made progress in 2009 and intend to continue to do so in the years to come.

Except where our other brands are specifically cited, this 2009 Stewardship Report's use of "Royal Caribbean Cruises Ltd.," and its corresponding abbreviation "RCL" pertain only to the activities and performance of Royal Caribbean International, Celebrity Cruises and Azamara Club Cruises.



## ENVIRONMENTAL STEWARDSHIP

RCL's commitment to the environment is embodied in our Save the Waves® program, a companywide philosophy that guides our ongoing efforts to minimize our environmental footprint, increase our support for conservation and set new environmental standards in our industry. From our onboard crew members to our senior executives, we are dedicated to continually improving our environmental performance, going *Above and Beyond Compliance* and inspiring our guests to share this commitment.

Led by our Environmental Stewardship Department, we put these ideas into practice through our corporate Environmental Policy; the presence of Environmental Officers onboard our ships, our Safety; Quality and Environmental Management System; internal and external auditing; and focus on rigorous compliance with internationally recognized quality and environmental management certification systems.

## ENERGY AND AIR EMISSIONS

In our daily operations, we face two primary energy challenges: how to efficiently utilize clean, secure and affordable energy, and how to minimize our impact on the environment related to our air emissions and greenhouse gas (GHG) footprint. As part of our program to reduce energy use and associated emissions, we continue to introduce

energy-efficient technology on our existing ships and design increased efficiencies into each new class of ship we build. For example, Royal Caribbean International's *Oasis of the Seas*, which at 225,000 gross tons is the largest cruise ship in the world, is projected to emit 30-40 percent less carbon dioxide (CO<sub>2</sub>) per person per day than ships built just a dozen years ago. We are also actively seeking ways to reduce fuel use. In 2009 we were able to reduce fuel consumption by 3.7 percent per average passenger cruise day (APCD) over 2008 levels and used nearly 30,000 less metric tons of fuel than planned. Looking forward, we are committed to reducing our GHG emissions by one-third per APCD by 2015, from a 2008 baseline.

## WATER AND WASTEWATER

We continually seek ways to reduce the consumption of fresh water on our ships through the development of innovative water-saving technology and procedures. As part of our progressive replacement program, we are evaluating the feasibility of replacing the older fresh water manufacturing systems on all of our ships with newer, higher-efficiency systems that provide the same amount of water for only about 35 percent of the electricity consumption.

Our wastewater management systems address the treatment of three types of wastewater: bilge water, graywater and blackwater. Bilge water is purified and cleansed using oily-water separators to less than 5 parts per million of oil, three times cleaner than the levels allowed by international regulations. In 2009, we completed the fleetwide installation of an additional oily bilge water discharge protection system to independently and automatically record any accidental or improper release of non-compliant bilge water. This system provided reliable confirmation that we had zero non-compliant discharges in 2009.

Graywater, which is drainage from showers and baths, washbasins, laundry, dishwashers, and kitchens, and blackwater, which is water from toilets, urinals and medical facilities, are collected separately and treated with approved marine sanitation systems. Our plan is to equip every ship in our fleet with an Advanced Wastewater Purification (AWP) System that produces an effluent that is cleaner than what is required by international sewage regulations and cleaner than what is discharged from most municipalities.

As of 2009, 22 of our ships are equipped with an AWP, and we plan to install these complex systems on four additional ships in 2010. Regardless of whether a ship is equipped with an AWP system, at all times we remain compliant with international, national and local laws and regulations for graywater and blackwater discharges.

## WASTE AND CHEMICAL MANAGEMENT

We do not discharge solid waste or chemicals into the ocean. Our ships' crew members work hard to reduce, reuse and recycle any materials they can, and our corporate polices, procedures, equipment and training support this important practice. In 2009, we recycled and reused more than 14 million pounds of materials, an increase of 2 million pounds from the previous year. We were also able to reduce the amount of waste landed ashore from our ships to 1.4 pounds per APCD in 2009, down from 2 pounds per APCD in 2007. We are committed to further improving these numbers, reducing the volume of solid waste going to land-fill by 50 percent and increasing the volume of waste recycled by 50 percent by 2015.

Though we produce only very small quantities of hazardous wastes, their potential for negative environmental impact makes management a key environmental priority. Each type



of hazardous waste has a specific handling and control process and is either recycled or landed to a qualified shoreside disposal facility. In 2009, we achieved a 25-percent reduction in the generation of hazardous waste from 2008 levels, which were in turn 44 percent lower than 2007 levels.

Additionally, we have implemented a Green Rating System that will guide us in analyzing, and removing chemical products that present an environmental concern from shipboard use.

### CONSERVATION, DESTINATIONS AND EDUCATION

Doing our part to ensure that the places where we operate are properly cared for and protected is a key part of our overall environmental stewardship commitment. We make investments in marine conservation, education and innovative technologies through our Ocean Fund, which awarded \$484,000 to 14 marine conservation and environmental organizations in 2009. We also support the conservation and protection of the Galápagos Islands' species and habitats through the *Celebrity Xpedition* Galápagos Fund. In 2009 the fund awarded \$350,000 to 15 organizations in the Galápagos. To inspire our ships to reach the highest levels of environmental performance and innovation, we sponsor annual Environmental Ship of the Year and Innovative Ship of the Year competitions among all the ships in our fleet. In the coming years we will expand the reach of the Ocean Fund in support of ocean science, conservation and education.

In our many destinations around the world, we face the challenge of providing exceptional guest experiences and contributing to local economies, while at the same time managing our impacts on what are some of the most biologically rich, unique and

sensitive places on Earth. In 2009, we hosted a Destination Stewardship Think Tank, bringing together leaders from the conservation and travel and tourism fields to discuss a cooperative and sustainable model of tourism development. As a result of this meeting, discussions are underway with the Tourism Sustainability Council to define a long-term goal for responsible destination stewardship. In 2009, in conjunction with the Cruise Lines International Association (CLIA) and Conservation International, we launched the pilot of the Ocean Conservation and Tourism Alliance's Criteria and Indicators for Sustainable Marine-based Tours, to encourage the adoption of environmental and social good practices by shore excursion providers. Our goal is that, by 2015, 50 percent of all shore excursions offered on our ships will be operated by tour operators that have been third-party verified to a recognized international sustainability standard.

We provide training and education to our officers, staff and crew on a continual basis, so they fully understand the importance of complying with onboard environmental policies and procedures. Each ship has an Environmental Officer (EO) responsible for training all crew members on the company's policies, expectations, and the ways in which Save The Waves® affects each employee. Every year, these EOs participate in Environmental Officer Training workshops hosted by the Environmental Stewardship Department at our headquarters in Miami. The EOs also provide educational programs and tours for guests, local schools, government officials and nonprofit organizations in ports of call. We aim to ensure that, by 2015, 80 percent of our guests, 100 percent of our crew and 100 percent of key people at our destinations will be familiar with our environmental principles, Save the Waves® and the Ocean Fund.

### COMMUNITY INVOLVEMENT

With operations throughout the world, we seek to be a good neighbor and community partner wherever our ships sail. Our goal is to enhance the well-being of these communities by encouraging volunteerism, fulfilling the wishes of children, offering scholarships, and helping protect the world's oceans.

One of our largest volunteer efforts is our annual G.I.V.E. Day, part of the RCL Get Involved, Volunteer Everywhere (G.I.V.E.) program. In 2009, over 1,000 employees participated in G.I.V.E. Day projects around the world. We also have a long-standing partnership with the Make-A-Wish Foundation, offering cruises to make wishes come true for critically ill children and their families. In November 2009, we donated 1,000 staterooms on a special one-night *Oasis of the Seas* inaugural and naming cruise as a fundraiser for the Make-A-Wish Foundation. In addition, our corporate officers play leadership roles in many charitable organizations.



## SAFETY AND SECURITY

We consider the safety and security of our guests, crew and shoreside employees to be one of our highest priorities. Our approach to safety and security includes implementing measures that help prevent incidents from occurring, as well as being prepared to effectively respond if an incident does occur. Our corporate safety and security policy has been developed to guide and ensure compliance with a complex combination of flag state, national, extraterritorial and international laws and regulations, as well as our voluntary certifications under the International Organization for Standardization (ISO).

Our ships are staffed with a dedicated onboard security team that sails with the ship at all times. The security team's responsibilities include "access security," which is the process of effectively screening everything and everyone that comes into the area of the ship, and "guest security," which involves helping guests enjoy their time onboard without incident. The security teams are aided in their work by the use of technology, including X-ray machines, drug and explosives detectors, the RCL watch list of persons who may not be welcome onboard an RCL ship, the Automated Personnel Assisted Security Screening (A-PASS) electronic identity card system for all guests and crew members, closed-circuit television systems in public areas, and a strict ship visitor policy.

While all of our vessels are equipped with advanced fire detection and suppression systems, fire safety begins with prevention. All ships are constructed and outfitted to meet the highest fire safety regulations, and are inspected throughout all stages of construction and operation by third-party safety inspectors. Our ships have thousands of highly sensitive smoke detectors, water mist fire suppression systems and fully trained groups of response personnel who can be immediately dispatched to any potential fire.

All of our ships comply with the latest International Maritime Organization safety regulations for cruise ships. New RCL ships are built to the same strong safety and security standards that are required on our existing ships, and also incorporate new innovations. For example, *Celebrity Solstice*, *Celebrity Equinox* and the Royal Caribbean International's *Oasis of the Seas* all feature a new bridge design that incorporates a state-of-the-art Safety Command Center. *Oasis of the Seas* also features an electronic mustering system using handheld portable digital assistants.

Like every other location in the world, RCL cruise ships occasionally experience security incidents that adversely impact our guests or crew. Although these type of incidents involve relatively few of our guests, even one such occurrence is too many. For this reason, our security efforts are focused not only on effective response, but also on effective prevention. RCL policy divides security incidents into three different types:

- **Guest Conduct Policy violations:** The Guest Conduct Policy (GCP) is a written code of common sense behavior that is expected of all guests sailing on an RCL cruise vacation. Violations may result in onboard

action, such as guest counseling, removal of onboard privileges, debarking or even denial of boarding on future RCL sailings.

- **Crime Allegations:** Despite our efforts to prevent incidents, occasionally a guest or crew member will allege being the victim of a crime during his/her cruise. RCL takes each allegation of crime seriously. We are committed to responding in an effective and caring manner for those involved, reporting all allegations of crime to the appropriate law enforcement agency and cooperating fully with authorities in their resolution of the allegation.
- **Missing persons:** Almost all missing persons situations are happily resolved within just a few minutes; however, on rare occasions, a guest or crew member is determined to have gone overboard during his/her cruise. To help prevent overboards, all RCL cruise ships exceed international ship building standards for minimum cruise ship guardrail height. Nevertheless, despite clear warnings to the contrary, some guests elect to sit, stand, lean over, pose or climb over safety guardrails. In each of the three overboard incidents on RCL ships in 2009, video and/or witness accounts reflect that the person deliberately climbed over the railing before entering the water.

It is important to RCL to offer vacations to locations where guests want to travel, and we recognize that people have differing opinions and thresholds for what they consider "safe and secure." Information about the security situation in destinations around the world is publicly available on regularly updated travel security and government websites. Just as for land vacations, this

is helpful and important information for guests to consider in preparation for a cruise vacation. We monitor the security situation in our destinations around the world. If we see indications that a selected port's security, political or social landscape is materially changing, we may enact additional security measures.



### MEDICAL/ PUBLIC HEALTH

While the vast majority of our guests remain in the best of health during their cruise vacation, occasionally a guest or crew member becomes ill or injured. All RCL ships have shipboard medical facilities that are built, staffed, stocked and equipped to meet or exceed guidelines established by the American College of Emergency Physicians Cruise Ship & Maritime Medicine Section. Each RCL ship has one-to-three independently contracted doctors and three-to-five nurses – depending on the size of the ship and number of passengers and crew– available to passengers and crew 24 hours a day, seven days a week.

Our medical facilities are stocked with a variety of equipment, including cardiac monitors, automated external defibrillators, ventilators, x-ray machines and processors, laboratory equipment, a formulary of acute care medications and a variety of minor surgical and orthopedic supplies. Our doctors also have access to online informational sources and 24-hour support from

shoreside medical professionals for additional assistance. RCL also requires all of our doctors and nurses to maintain Advanced Cardiac Life Support (ACLS) training provided through the well-respected American Heart Association.

In responding to medical emergencies, our goal is to first stabilize emergency patients and, where indicated, evacuate the patient to an appropriately equipped and staffed shoreside medical facility as soon as practical. We employ nearly 50,000 crew members from more than 100 different countries. To ensure our employees are in good health and can effectively perform their jobs, we have created our Pre-Employment Medical Examination (PEME) and Re-Employment Medical Examination (REME) programs. Once onboard, we strive to keep our valued crewmembers as healthy and happy as possible through onboard wellness programs.

Our public health policies and programs meet or exceed the public health standards, procedures and inspection criteria of the U.S. Centers for Disease Control (CDC) Vessel Sanitation Program (VSP). Our ships are subject to unannounced inspections by CDC/VSP inspectors throughout the year, and in 2009, RCL achieved a fleetwide average U.S. Public Health inspection score of 96.86 percent. We are also subject to other public health guidelines, including those of the European Working Group for Legionella Infections (EWGLI) and the SHIPSAN program, which is being developed by the Directorate General for Health and Consumers of the European Commission.

We have developed an Outbreak Prevention Plan to guide us in the event we experience common shoreside illnesses. This plan combines screening and surveillance, sanitation, supplies, isolation and treatment, guest and crew education, communication with shoreside health authorities, and the debarking

of patients where necessary and appropriate. During 2009, we met the challenge of H1N1 by quickly developing and adjusting our policies to meet the varying concerns and requirements of the many nations where our ships call. Onboard, we maintain active surveillance for indications of onboard illnesses so that if an unusual number of illnesses (including gastrointestinal and/or respiratory) are identified, the ship can quickly recognize this development and implement response protocols with an increase in cleaning and sanitizing throughout the ship.

To maintain the purity and cleanliness of all shipboard water systems - which includes potable (drinking) water, as well as recreational water for swimming pools, whirlpools and spa pools - we routinely test all shipboard potable water and recreational water, including all water that is taken onboard in ports-of-call.

### CARETEAM

Our CareTeam is a dedicated group of trained specialists, based at our headquarters in Miami, who provide professional logistical and emotional support in the event one of our guests experiences a personal emergency while sailing with us. This team is available 24 hours a day, seven days a week, to provide support during a family tragedy at home, an illness or emergency onboard, or an incident while ashore.

As of 2009, we have also made the CareTeam's services fully available to our crew members onboard our ships. In the next year, we plan to increase the effectiveness of the CareTeam by formally selecting and training onboard personnel to perform as CareTeam Associates on each ship in our fleet.





Stockholm, Sweden



# WELCOME







I began my employment with Royal Caribbean Cruises Ltd. (RCL) in the summer of 2006, after an almost 29 year career of progressively challenging leadership positions in the U.S. Federal Bureau of Investigation (FBI). RCL has given me the opportunity to apply my experience through overseeing not only global security, but also environmental stewardship, maritime safety and medical/public health. I am proud to have this role and have assembled a very talented team of leaders and subject matter experts to prevent and, if necessary, effectively respond to any incidents or issues that may arise. Vice Presidents Jamie Sweeting, Dr. Art Diskin and Larry Bowling have very strong credentials, and together I feel we are well-positioned to lead and advance our areas of corporate responsibility.

In this our *2009 Stewardship Report*, we have built upon last year's inaugural report by advancing its environmental stewardship content and greatly expanding its safety and security, and medical/public health information. In the pages that follow, this 2009 report highlights notable progress in a number of areas, including, our strong emphasis on incident prevention and adherence to laws and regulations; our increasing focus on destination stewardship; improvements in energy efficiency; reduction of our carbon footprint; reductions in the amount of waste per person per day landed to landfills; increased partnerships with medical centers of excellence around the world; expanded CareTeam services; new safety innovations; and progressive security measures.

Looking ahead to 2010, technological advancements, innovation and continued dedication will be needed to meet new and emerging worldwide air emissions, wastewater, ballast water, security, safety and medical regulations. There is more we can and will do to increase energy efficiency and reduce greenhouse gas emissions. We will continue to expand our already strong wastewater treatment capabilities and will continue to reevaluate and update our strategies for resisting the impact of emerging and even common shoreside illnesses. We will conclude a realignment of oversight and response protocols for safety incidents and implement additional measures that further reduce the number and severity of safety, security and medical incidents.

I am committed to our corporate goal of providing fantastic vacation experiences in a manner that is sustainable over time. This requires a tireless focus on *continuous improvement* and dedication to meeting or exceeding government, regulatory, customer, employee and shareholder expectations. I hope you find this annual stewardship report informative and look forward to sharing our continuing progress with you in the years to come.

A handwritten signature in black ink that reads "Gary M. Bald". The signature is fluid and cursive.

Gary M. Bald  
Senior Vice President  
Safety, Security, Environment and Medical/Public Health  
Royal Caribbean Cruises Ltd.

# ABOUT ROYAL CARIBBEAN CRUISES LTD.

Royal Caribbean Cruises Ltd.<sup>1</sup> (RCL) is the world's second-largest cruise vacation company, with a combined total of 38 ships in service, providing approximately 84,050 berths as of December 31, 2009. We own and operate five brands: Royal Caribbean International, Celebrity Cruises, Pullmantur Cruises, Azamara Cruises and CDF Croisières de France. Additionally, we have a 50-percent investment in a joint venture with the German-based company TUI A.G. This joint venture, TUI Cruises, began sailing its first ship in 2009.

During 2009, our brands carried nearly four million guests. Our ships sail itineraries throughout the world, ranging from two to 18 nights, visiting approximately 400 destinations. We also have four ships under development, one in Royal Caribbean International's Oasis class and three in Celebrity Cruises' Solstice class. Two of these, *Celebrity Eclipse* and *Allure of the Seas* are expected to enter into service in the second and fourth quarters of 2010, respectively. In addition to our cruises, our company offers unique pre- and post-cruise hotel packages, including fully escorted premium land tours in Alaska, Asia, Australia, New Zealand, Canada, Europe and South America.

Our common stock is listed on the New York Stock Exchange and the Oslo Stock Exchange under the symbol RCL. Our headquarters are located in Miami, Florida, USA, and we have approximately 49,000 employees globally. Our investor website is [www.rclinvestor.com](http://www.rclinvestor.com). Except where indicated, this report and its reference to "RCL" addresses the operation of our Azamara Club Cruises, Celebrity Cruises and Royal Caribbean International brands. Future versions of this Stewardship Report will include expanded information on our non-U.S. based brands.



<sup>1</sup>Except where indicated, this report and its reference to "RCL" addresses the operation of our Azamara Club Cruises, Celebrity Cruises and Royal Caribbean International brands. Future versions of this Stewardship Report will include expanded information on our non-U.S. based brands.





Our first ships—*Song of Norway*, *Sun Viking* & *Nordic Prince*



*Voyager of the Seas*



*Oasis of the Seas*



*Celebrity Century*



*Celebrity Solstice*



*Azamara Journey*

## A TIMELINE OF SOME OF OUR MAJOR MILESTONES:

- 1969 Royal Caribbean Cruises Ltd. is founded on January 31.
- 1970 We introduce the first ship built for warm-weather cruising, *Song of Norway*.
- 1988 We launch the world's first "megaship," *Sovereign of the Seas*, which boasts the first five-deck Centrum with glass elevators, sweeping staircases, and fountains in marble pools.
- 1993 Royal Caribbean Cruises Ltd. is traded publicly as RCL on the New York Stock Exchange.
- 1995–1998 We introduce the "Ships of Light," six vessels in Royal Caribbean International's Vision class that feature an extraordinary expanse of glass — almost two acres of windows — bringing natural light deep within the ships.
- 1995–1997 The company gains greater sophistication with the acquisition of the five-ship Celebrity Cruises fleet, featuring *Celebrity Century*, *Celebrity Galaxy* and *Celebrity Mercury*, built in 1995–1997.
- 1999–2003 Royal Caribbean International launches *Voyager of the Seas* and four sister ships, the then-largest cruise ships in the world, with each accommodating 3,114 guests.
- 1999 We unveil the world's first ice-skating rink, rock-climbing wall and horizontal atrium on a cruise ship, all onboard *Voyager of the Seas*.
- 2000–2002 Celebrity Cruises launches *Celebrity Millennium* (2000), *Celebrity Infinity* (2001), *Celebrity Summit* (2001) and *Celebrity Constellation* (2002), and becomes synonymous with elegant cruising by consistently ranking in the top 10 among large ships in the *Condé Nast Traveler* magazine poll.
- 2000 We venture onto land with Royal Celebrity Tours, providing pre- and post-cruise land vacations in Alaska via glass-domed railcars to Denali National Park and the Talkeetna River Valley. Our cruise tours have since expanded globally.
- 2004 We follow in the wake of Charles Darwin in the Galápagos Islands with the 90-passenger megayacht *Celebrity Xpedition*.
- 2006–2008 We welcome the 154,000-ton *Freedom of the Seas* and her two sisters, *Liberty of the Seas* and *Independence of the Seas*, then the world's largest ships, to the Royal Caribbean International fleet.
- 2006 We introduce the first onboard surfing simulator, the Flow Rider, aboard *Freedom of the Seas*.
- 2007 We introduce a new brand, Azamara Club Cruises, with *Azamara Journey* and *Azamara Quest* exploring exotic destinations, such as Antarctica, Brazil and the Chilean fjords.
- 2008–2009 Celebrity Cruises undertakes a five-ship expansion with *Celebrity Solstice* (2008) and *Celebrity Equinox* (2009), to be followed in successive years by *Celebrity Eclipse*, *Celebrity Silhouette* and one yet-to-be-named ship.
- 2009 Royal Caribbean International unveils the next generation of cruise ship innovations and advancements with the inauguration of *Oasis of the Seas*. This 225,000-ton ship, now the largest in the world, boasts features never before seen on a cruise ship, including an open-air Central Park, an Aqua Theater with high-diving performances, and a Boardwalk carousel.

The image shows a wide, deep fjord in Geiranger, Norway. The water is a deep blue, reflecting the sky. The surrounding mountains are steep and rugged, with some snow patches on the higher peaks. The sky is a clear, bright blue with a few wispy clouds. In the foreground, there are several tall, green evergreen trees. The overall scene is a beautiful natural landscape.

# TABLE OF CONTENTS

MESSAGE FROM OUR CHAIRMAN AND CHIEF EXECUTIVE OFFICER . . . . . 3

EXECUTIVE SUMMARY.. . . . . 4

MESSAGE FROM OUR SENIOR VICE PRESIDENT OF SAFETY,  
SECURITY, ENVIRONMENT, MEDICAL/PUBLIC HEALTH . . . . . 11

ABOUT ROYAL CARIBBEAN CRUISES LTD. . . . . 12

**ENVIRONMENTAL STEWARDSHIP**

MESSAGE FROM OUR VICE PRESIDENT OF ENVIRONMENTAL STEWARDSHIP . . . . . 17

ENVIRONMENTAL AWARDS . . . . . 19

OUR ENVIRONMENTAL STEWARDSHIP COMMITMENT . . . . . 20

ENVIRONMENTAL STEWARDSHIP OVERVIEW

    ENERGY AND AIR EMISSIONS . . . . . 24

    WATER AND WASTEWATER . . . . . 32

    WASTE AND CHEMICAL MANAGEMENT . . . . . 40

    CONSERVATION, DESTINATIONS AND EDUCATION . . . . . 48

    COMMUNITY INVOLVEMENT . . . . . 58

**SAFETY AND SECURITY**

MESSAGE FROM OUR VICE PRESIDENT OF GLOBAL SECURITY AND MARITIME SAFETY . . 65

SAFETY AND SECURITY OVERVIEW . . . . . 66

TRAVELER SAFETY AND SECURITY TIPS . . . . . 80

**MEDICAL/PUBLIC HEALTH**

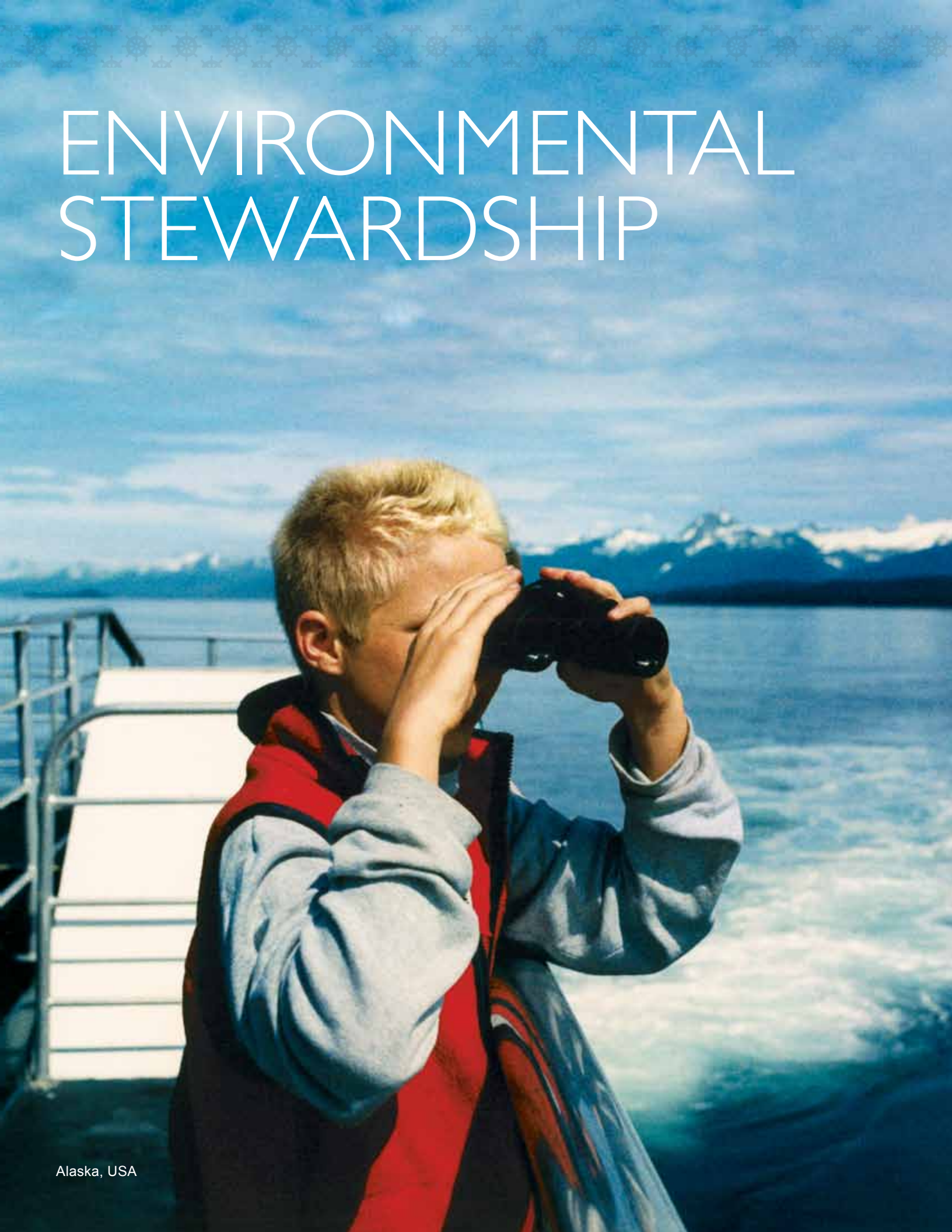
MESSAGE FROM OUR VICE PRESIDENT OF MEDICAL/PUBLIC HEALTH . . . . . 83

MEDICAL/PUBLIC HEALTH OVERVIEW. . . . . 86

CARETEAM OVERVIEW. . . . . 96



# ENVIRONMENTAL STEWARDSHIP



Alaska, USA





At Royal Caribbean Cruises Ltd. (RCL), our business depends on a healthy marine environment and the well-being of the destinations we visit. Because of this dependence, we know that we have a strong responsibility to protect these places, both to ensure the future of our business and because it is the right thing to do.

With 38 ships sailing to approximately 400 destinations around the world, we recognize the potential impact that our operations may have on the oceans and the people and places we visit. While this can be daunting, it is also inspiring. RCL's prominent position in the cruise industry affords us the opportunity to bring about important changes that can alter the face of the entire tourism sector.

In 2009, our efforts were recognized with several environmental awards around the world in recognition of our industry-leading initiatives in environmental sustainability, wastewater purification, recycling and support for conservation.

This *2009 Stewardship Report*, our second, has been updated and expanded over last year's, to provide even more information on our efforts to live by our Save the Waves® philosophy, our ongoing commitment to protect the people and places we serve and maintain the distinctive guest experience for which we're known. In these pages, you will read about our continued achievements in the areas of energy and air emissions; water and wastewater; waste and chemical management; conservation, destinations and education; and community involvement.

I want to highlight two issues in particular: **climate change** and **destination stewardship**.

Climate change is perhaps the defining issue of our time, and reducing our greenhouse gas emissions will be one of our most profound and far-reaching challenges in the years ahead. Although the international community did not come to agreement on emissions reductions this year, we recognize our responsibility to meet this challenge even without regulations or an international mandate. We continue to work on ways we can become more energy efficient and reduce our emissions, day in and day out.

Destination stewardship means managing our impacts on the fragile ecosystems and communities that we visit. Cruise destinations are often located in some of the most biologically rich, unique and sensitive places on Earth, and it is our responsibility to ensure that our actions, and those

of our guests, do not unintentionally degrade the very places that make our product attractive and unique. Because we share this responsibility with international and local governments, nongovernmental organizations, community groups (civil society), local businesses and communities, we understand that destination stewardship has to be a joint effort. To this end, in 2009 we hosted a Destination Stewardship Think Tank onboard the newly launched *Oasis of the Seas*. This workshop brought leaders from the conservation, tourism and development fields together to discuss a new model of cooperative tourism, where key players work together to maintain the integrity of a destination through sustainable policy and management frameworks. In the coming years, we will continue to support this important work.

I came to RCL after 15 years in the conservation field, eager to help a private company follow through on its environmental responsibilities. After more than two years, I continue to be impressed on a daily basis by the executive-level commitment to these values at RCL, and also by the embracing of the Save the Waves® culture among our employees, from the crew members sorting recyclables on our ships to the Chairman of the Board.

I am particularly proud of our Environmental Officers (EOs), who play a unique and important role in our company. Every EO, on every ship in our fleet, is dedicated to ensuring that our ships have as little adverse impact as possible on the environment and that guests and crew members alike are aware of, and support, our environmental stewardship policies and procedures.

Over the years, we have invested significant time and resources in operations, ocean conservation and community development, and we will continue to do so in the years ahead. I invite you to read about our efforts in this report and then join us as we cruise toward a more sustainable future.



Jamie Sweeting  
Vice President, Environmental Stewardship and  
Global Chief Environmental Officer  
Royal Caribbean Cruises Ltd.

**ENVIRONMENTAL AWARDS 2009**

**2009**

RCL - Virgin Holidays, Responsible Tourism Award Winner for Best Cruise or Ferry Operator

RCL - Greater Miami Chamber of Commerce Sustainable South Florida Award Winner for Green Business

RCL - Nor-Shipping Clean Sea Award for *Oasis of the Seas*' Advanced Wastewater Purification System

The Ocean Fund - Coastal America Spirit Award Winner for funding provided to The Nature Conservancy, Alaska ShoreZone Mapping and Imagery Project

Azamara Club Cruises - Best Cruise Line for Expedition Cruising, Travel Age West WAVE Awards

Celebrity Cruises - Best Healthful and Alternative Dining, Cruise Critic's Annual Editors' Picks Awards

Celebrity Cruises - Recycler of the Year, as named by the City of San Diego in its 16th Annual Waste Reduction and Recycling Awards

*Celebrity Solstice* - Overall Eco-Friendly "Green" Cruise, Cruise Ship Gold

*Celebrity Solstice* - Greenroofs.com's "Hot Trends Top 10 List" for The Lawn Club

*Mariner of the Seas* - Port of San Francisco Environmental Gold Award

*Radiance of the Seas* - Port of San Francisco Environmental Gold Award

*Serenade of the Seas* - Port of San Francisco Environmental Gold Award



*Greater Miami Chamber of Commerce Sustainable South Florida Award Winner for Green Business*



*Port of San Francisco Environmental Gold Award*



*Nor-Shipping Clean Sea Award*



*Azamara Quest*



*Celebrity Solstice*



*Radiance of the Seas*

# OUR ENVIRONMENTAL STEWARDSHIP COMMITMENT



Save The Waves® helps guide our company's operating philosophy. It has become an integral part of each crew member's job and is the backbone of daily operations. There are four key principles of Save The Waves®:

- **Reduce, Reuse, Recycle:** Reduce the generation of waste material, reuse and recycle wherever possible, and properly dispose of remaining wastes.
- **Practice Pollution Prevention:** Nothing may be thrown overboard. Nothing.
- **Go Above and Beyond Compliance (ABC):** ABC means doing more than is required by regulations.
- **Continuous Improvement:** Change is the only constant; innovation is encouraged and rewarded.

At Royal Caribbean Cruises Ltd.<sup>1</sup> (RCL), our commitment to the environment extends throughout our organization, from senior management to our crew members onboard our ships. We strive to inspire our guests to share our commitment, with the goal of making their cruise experience that much more satisfying. We acknowledge that we are not perfect; however we are dedicated to continually improving our operations both onboard and ashore, to minimize our environmental footprint and maximize our contribution to conservation.

Since our company was founded in 1969, we have implemented a wide variety of environmental initiatives, policies and activities. Nearly 20 years ago, we formalized those efforts into a program we call Save The Waves®. Since its creation, the Save The Waves® program has evolved from a simple focus on reducing, reusing and recycling waste to a company-wide philosophy that is integrated into the daily operations onboard all our ships.

Save the Waves® represents our ongoing commitment to protect the people and places we serve and maintain the distinctive guest experience for which we're known. Today, the program includes environmental officers onboard each ship, a comprehensive waste-management program that completely addresses each waste stream, and environmental training for every crew member and land-based employee. During the past two decades, we have continually improved our Save The Waves® program to ensure that not only our employees, but also our guests are directly engaged in our environmental efforts.

Guided by our Environmental Stewardship Department, we adhere to our Save The Waves® principles, both onboard our ships and at our land-based offices. We follow a comprehensive environmental management system and ensure consistent fleet-wide compliance with company policies and procedures, as well as numerous rules and regulations that cover our operations.

Our *Above and Beyond Compliance* policy challenges us to exceed what is required by law. Similarly, our policy of *Continuous Improvement* drives us to look at new and different ways in which we can improve on our past performance. With regard to our stewardship of the environment, we constantly strive to minimize our environmental footprint, increase our support for conservation, and set new environmental standards in the cruise industry.



## ENVIRONMENTAL POLICY

RCL values the environment and is committed to protecting and preserving environmental resources, preventing pollution and *continuous improvement* of environmental management. Implementation of this policy is a primary management objective and the responsibility of every employee, shipboard and shoreside.

To this end we will:

- Meet applicable shoreside and at sea environmental regulations and requirements, including those of the flag administrations, port states and international conventions.
- Explore and implement programs that go *Above and Beyond Compliance* in our environmental performance.
- Set and review environmental objectives and goals that challenge the company to continually improve environmental management and pollution prevention.
- Recycle and reuse materials to the extent practical. Specify and purchase goods that have a content of recycled material without sacrificing efficiency and quality, taking into account the overall environmental impact.
- Maximize our efficiency in the use of natural resources, e.g. energy and water.
- Consider environmental issues in all design and development projects.
- Promote good stewardship of the marine environment through internal and external initiatives, such as Save The Waves® and the Ocean Fund.
- Encourage vendors and suppliers to make a commitment to environmental performance improvement.
- Communicate our environmental commitment to our guests and request that they join us in respecting the environment.
- Inform the public of our environmental commitment.

## ENVIRONMENTAL OFFICERS

For more than a decade, we have had a robust environmental management system in place on each of our ships, led by our Environmental Officers (EO)s. Royal Caribbean International was the first cruise line to have a dedicated Environmental Officer on every ship. Our EOs are responsible for adherence to our environmental management system and prevention of environmental incidents. EOs report directly to the master of each ship and are also accountable shoreside to our Vice President of Environmental Stewardship.

The Environmental Officers are responsible for training all crew members on our Save The Waves® policy and on their environmental responsibilities. All new and returning crew members receive mandatory orientation and instruction on their responsibilities regarding Save The Waves® and on the company's environmental policies and expectations. Afterwards, each crew member must sign an individual pledge to protect the environment and uphold his/her responsibilities. This personal commitment helps make certain everyone fully understands the importance of this program.

Additionally, each crew member is encouraged to take time to explain the concept and importance of Save The Waves® to our guests.



In 1996, we launched the Ocean Fund, which has since invested more than \$10 million to support marine science, education and conservation initiatives.

### Save The Waves® Hotline

We provide feedback mechanisms for our employees through our Save The Waves® Hotline. Calls are monitored by the Environmental Stewardship Department and are always treated in a confidential manner. Our guests also are encouraged to use this hotline if they have any concerns. Our Save The Waves® Hotline number is: 1-888-215-9283 (WAVE).



The company has certified critical segments of our operations against both the ISO 9001 (quality management) and ISO 14001 (environmental management) standards of the International Organization for Standardization (ISO).



We partnered with Conservation International, a global conservation leader, and Sustainable Travel International to help us develop a comprehensive Environmental Stewardship Strategy.

## Board Oversight

We have a Board of Directors committee that provides guidance and oversight of our safety, security, environmental stewardship and medical/public health work. This committee is chaired by William K. Reilly, former administrator of the United States Environmental Protection Agency. The committee members bring extensive environmental, maritime and management expertise and experience to help govern our work in this area.

## QUALITY AND ENVIRONMENTAL MANAGEMENT CERTIFICATION

In 1996, we began taking steps to certify critical segments of our operations against the International Organization for Standardization (ISO) standards for both quality management systems (ISO 9001) and environmental management systems (ISO 14001). We completed the certification process and obtained certification to both standards in 1997. This accomplishment was unprecedented in the cruise industry and is representative of our commitment to being *Above and Beyond Compliance*.

Certification to internationally recognized quality and environmental management standards sends a clear message of commitment to our guests, employees and shareholders. Our management systems also comply with the International Safety Management Code of the International Maritime Organization (IMO), which became mandatory in July 1998. These standards challenge us to set objectives and targets for reducing significant environmental impacts, and they echo our company's desire for *continuous improvement*. Both our shoreside and shipboard operations and personnel are regularly audited against the ISO standards and the International Safety Management Code.

Our strict adherence to the four principles of Save the Waves® is written into our comprehensive Safety, Quality and Environmental Management system, known internally as SQM. This program includes electronic manuals that are designed to ensure consistent, fleet-wide compliance with company policies and procedures, as well as the numerous rules and regulations that cover our operations. The system mandates regular management reviews of operations, including self-verification of our safety, quality and environmental policies, which help in maintaining our voluntary ISO 9001 and 14001 certifications.

Our internal and external auditing processes ensure full adherence to our environmental policies. These audits begin with our captains and top shipboard officers holding frequent inspections and reporting those results. Each ship conducts a weekly captain's environmental meeting, bringing together all department heads to review the ship's environmental programs and performance. The internal portions of our audits involve environmental experts from our Environmental Stewardship Department. The external audits involve independent certification agencies (DNV, Bureau Veritas and Lloyd's Register) that verify our compliance with all applicable local, national and international safety, security, quality and environmental standards.

## CORPORATE SUSTAINABILITY COUNCIL

RCL's Corporate Sustainability Council (CSC) provides a company-wide framework and organizational structure to oversee our commitment to environmental stewardship. The Council, which was established in 2008, is co-chaired by Adam Goldstein, President and CEO of Royal Caribbean International; Dan Hanrahan, President and CEO of Celebrity Cruises; and Jamie Sweeting, Vice President of Environmental Stewardship and Global Chief Environmental Officer.

CSC members, who come from all parts of the company, champion corporate policies and programs that reduce the impact of our operations in real and measurable ways. They go *Above and Beyond Compliance* with a holistic view that considers environmental impacts, contribute to environmental programs and initiatives, and raise awareness and call for action among our guests, employees and business partners.

## SIGNIFICANT ENVIRONMENTAL ASPECTS

To prioritize our environmental activities and ensure we focus on the right areas, RCL has created a process for identifying and prioritizing environmental aspects of our operations. A committee of internal experts from operational areas and the Environmental Stewardship Department annually reviews our operations to identify those aspects of our products, services and activities over which we have control and influence, and to then determine which of those aspects has the potential to significantly impact the environment. Our company has identified the following Significant Environmental Aspects:

CATEGORY	ASPECT	POTENTIAL IMPACT
Existing Ships - Main & Auxiliary Machinery	Air emission	Air pollution (opacity, particulate matter (PM), NOx, SOx); climate change (CO <sub>2</sub> )
Incinerator/Flue gas	Air emission	Air pollution (opacity, particulate matter (PM), NOx, SOx); climate change (CO <sub>2</sub> )
Chemicals use/Handling/Storage	Air emission	Climate change, ozone-depleting potential
Refrigerants (CFCs, HFCs, HCFCs)	Air emission	Climate change, ozone-depleting potential
Dry cleaning solvent (perc)	Air emission	Release to environment, marine life mortality
Fire-fighting agent (Halon, CO <sub>2</sub> )	Air emission	Climate change, ozone-depleting potential
Chemicals use/Handling/Storage	Release to land or sea	Environmental degradation
Graywater	Release to the sea	Environmental degradation
Hull and propeller fouling (underwater propeller polishing, hull cleaning)	Release to the sea	Marine life mortality and invasive species
Untreated blackwater and bio-residual	Release to the sea	Environmental degradation
Airborne particles (grinding, chipping, tile cutting, painting)	Release to the sea	Marine life mortality
TBT paint	Release to the sea	Marine life mortality
Petroleum, oils and lubricants from various machinery and seals	Release to environment	Marine life mortality
Ballast water	Release in port	Invasive species transfer
Petroleum	Consumption	Natural resource depletion
Hazardous waste	Disposal	Air, water or land ecosystem damage
Non-hazardous waste	Inefficient disposal	Air, water or land ecosystem damage

Based on these aspects, each brand develops objectives and targets for improvement of their environmental performance. These objectives and targets are reviewed during the brand's management review meetings. Specific objectives and targets fall under general categories such as:

- Reduce CO<sub>2</sub> emissions and fuel consumption;
- Reduce overall air emissions;
- Minimize consumption of refrigerants;
- Reduce chemicals of environmental concern;
- Minimize solid waste generation;
- Increase recycling; and
- Reduce water consumption.

# ENERGY AND AIR EMISSIONS

## WHAT ARE THE ISSUES AND WHAT HAVE WE BEEN DOING ABOUT THEM?

The cruise industry, like many industries around the world, is faced with two primary energy challenges: how to efficiently provide clean, secure and affordable energy and how to minimize our impact on the environment related to our air emissions and greenhouse gas (GHG) footprint. These issues have become so important that now several governing bodies around the world are either discussing enacting or have already enacted regulations to reduce emissions from the shipping and cruise industries. The International Maritime Organization (IMO) and the European Union have instituted sulfur dioxide limitations that will take effect in 2010, and the IMO is working hard to establish a framework to reduce carbon dioxide (CO<sub>2</sub>) emissions. The U.S. Environmental Protection Agency (EPA) and Canadian government have been granted approval from the IMO to designate the first 200 nautical miles from their respective coast lines as Emission Control Areas (ECAs), which when enforced in August 2012, will significantly reduce the allowable limit on sulfur dioxide, nitrogen oxides, and particulate matter emissions.

### The paradox of biofuels

In 2006 and 2007 RCL was one of the world's single largest end users of biodiesel, which is a cleaner-burning diesel fuel made from natural, renewable sources, such as vegetable oils. Driven by the apparent environmental advantages of biodiesel, as well as government incentive programs to encourage the growth of the biodiesel market, we began an ambitious program to power our gas turbine ships with this alternative fuel. While biodiesel use presented some operational challenges, we still saw it as a "win-win" for the environment and for our company. Unfortunately, evidence began to emerge that increased demand for biofuels was causing an increase in global prices for food staples like corn and sugar. In addition, a number of environmental groups raised concerns about increased deforestation, particularly in Malaysia and Indonesia, to clear land for the cultivation of crops for biodiesel production. As a result of these concerns, as well as the changing economics of biodiesel use, we dramatically reduced our consumption of biodiesel in 2008, and do not have current plans to consume biodiesel in the near future. While we have scaled back our biodiesel use today, we continue to track the development of the next generation of biofuels, to determine whether they can make a positive contribution to our overall air emissions reduction strategy without generating additional unacceptable impacts.

Several years ago, we embarked on an ambitious program across our fleet and land-based offices to substantially reduce energy use and associated air emissions. We have already achieved significant efficiencies and continue to design greater savings into each new class of ship we build. We pride ourselves on being a leader in the use of new technologies to improve efficiencies onboard our ships. For many years, through exploration of advanced technologies, we have been deploying some of the most energy-efficient ships in our industry, making our fleet progressively more environmentally friendly. For example, the four ships in Royal Caribbean International's Radiance class and the four ships in Celebrity Cruises' Millennium class are equipped with smokeless gas-turbine engines - the first in the cruise industry. We now have three ships (*Celebrity Solstice*, *Celebrity Equinox* and *Oasis of the Seas*) with thin-film solar panels installed on their top decks, another industry first. These solar panels provide enough electricity to power approximately 7,000 LED lights on the Solstice-class vessels and fixed lighting in the Royal Promenade on *Oasis of the Seas*.

Today, we continue to research and implement innovative technologies in our newbuilding and marine operations programs. Royal Caribbean International's newest ship, *Oasis of the Seas*, which began sailing in December 2009, is an excellent example of our ongoing efforts to reduce our environmental footprint. Even at 225,000 gross tons, the carbon dioxide (CO<sub>2</sub>) emissions from the main engines of *Oasis of the*



Seas are projected to be 30-40 percent less per person per day than from ships built a dozen years ago (based on sea trial data).

Another example of our *continuous improvement* efforts is in hull design. We have built tools and continue to assess and deploy new equipment that helps identify hull performance improvements. This includes enhancements in hull form and development techniques. We have also worked with paint manufacturers to develop innovative and environmentally safe coatings that increase the smoothness of our hulls. By creating a smoother hull, we can reduce the amount of energy needed to travel through the water, which, in turn, reduces our air emissions.

**ENERGY USE – WHERE ARE WE NOW?**

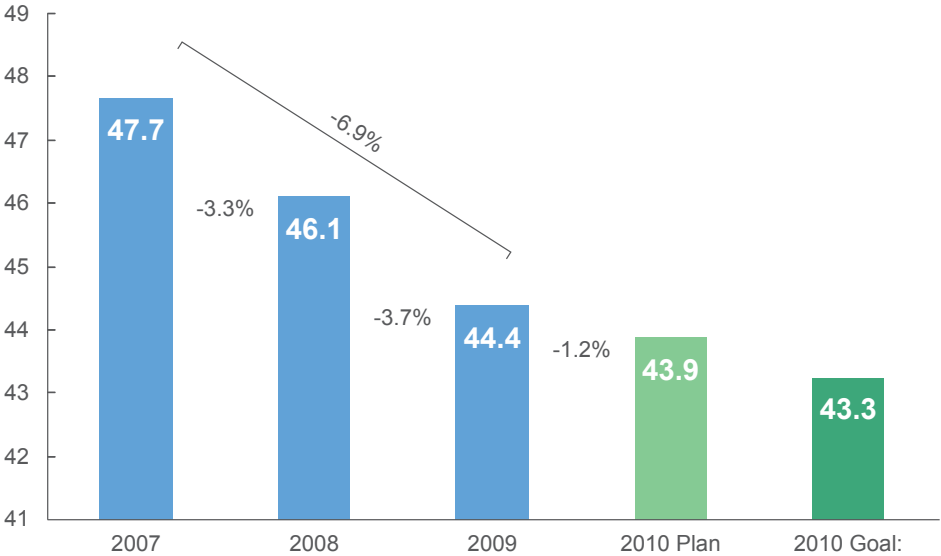
In 2009, our ships reduced fuel consumption by 3.7 percent per available passenger cruise day (APCD) over 2008 levels; exceeding our 2 percent reduction goal by 85 percent. We used just under 30,000 less metric tons of fuel than planned. Saving this amount of fuel would be like taking more than 13,000 of the best selling mid-size sedans off the road. These savings were realized in part through the introduction of two new ships to our fleet: *Celebrity Equinox* and Royal Caribbean International’s *Oasis of the Seas* (the largest cruise ship in the world). Since 2007, we have reduced fuel consumption per APCD by approximately 7 percent (see Figure 1). We were able to achieve these reductions in fuel consumption through technological advances in the design of our newest ships and by enhancing the way in which we sail to each of our destinations. Our goal for the coming year is to further increase our efficiencies and



**Breakthrough Hull Design**

In the interest of maximizing energy efficiency, the *Celebrity Solstice*-class ships were designed from the hull up, rather than in the traditional manner of designing the guest spaces first and building a hull around those spaces. An extensive model testing and optimization program was conducted to create the ultimate hull, including wind-tunnel and test-tank trials with three different large-scale models. More than 90 tests were conducted to continuously improve the hull design to reduce resistance and burn less fuel, resulting in fewer emissions.

**Figure 1 – Fuel Consumption per 1,000 APCD (Metric Tons) (rounded up to the nearest whole number)\***



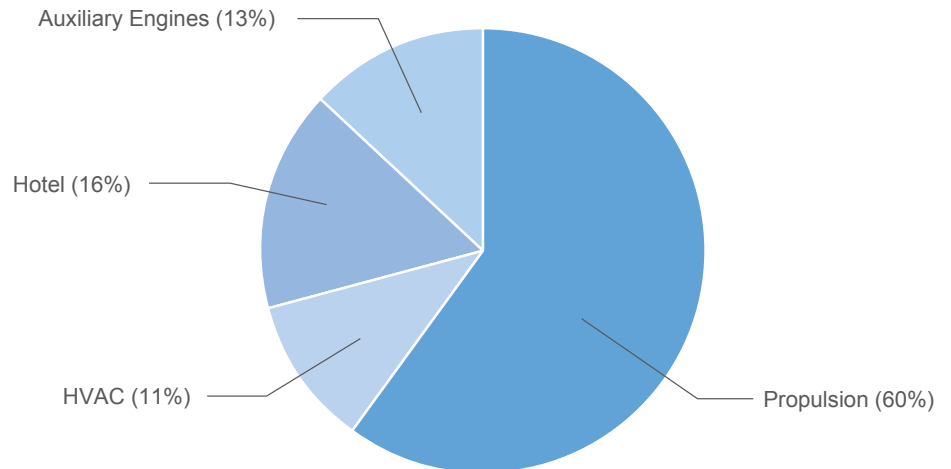
\*The fuel consumption figure for 2007 (48) differs from that which was presented in last year’s report (47), as the total has since been adjusted from 47.4 to 47.7 per 1,000 APCD, due to mathematical corrections

**Available Passenger Cruise Days**

Throughout this report, we use a metric called Available Passenger Cruise Days (APCD). This refers to the number of lower berths on a ship times the number of days that those berths are available to passengers per year. So, for example, if a 2,000-berth ship is in dry-dock for five days out of the year, then the ship’s APCD for that year would be 2,000 x 360, or 720,000.

save an additional 2.5 percent per APCD in 2010, a stretch goal for all our teams, as, based on our financial plan for 2010, we currently anticipate a 1.6 percent reduction. In looking at what drives fuel consumption onboard, we found that in 2009, 60 percent of fuel was used for propulsion and maneuvering; 16 percent for hotel operations; 11 percent for heating, ventilation and air conditioning (HVAC); and 13 percent for the engine room and auxiliary equipment (See Figure 2).

**Figure 2 – 2009 Fuel Consumption Drivers**



### Energy Challenge

Climate change is the defining environmental issue of our time, and there are a number of technological challenges the world must overcome. We take our responsibilities in this regard very seriously. We are also looking for technical solutions whereby we can reduce both our carbon footprint and other emissions.

We have been working on testing and deploying more efficient means of power production and consumption, as well as utilizing cleaner fuels. These measures include improved hydrodynamics, propeller, propulsion and hull designs, all of which require less fuel per base unit. Our cross-company focus on active management of the drivers of energy, such as ship speed; hull maintenance; deployment (itinerary planning of individual sailings); heating, ventilation and air conditioning usage; lighting; water management; and behavioral changes among our guests and employees, has enabled us to reduce our fuel use by 2-4 percent per APCD since last year.

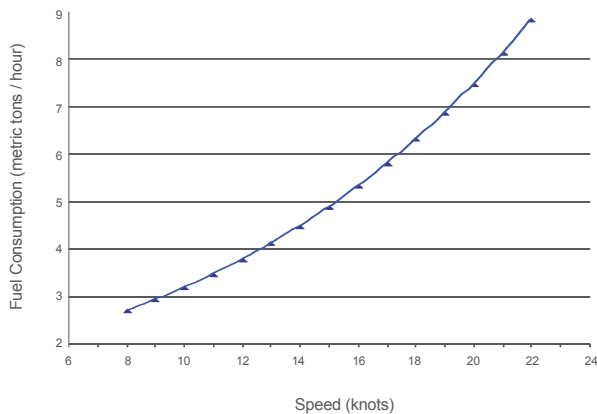
Propulsion is the largest driver of fuel consumption, and we are actively testing several programs that aid in optimizing the performance of each ship. Every ship has an optimal way in which it rides through the water. When a ship is tilted either left to right (listing) or back to front (a measure of trim) or any combination of the two, this increases the hull's resistance in the water, which in turn decreases fuel efficiency. By pairing sensors and software, we will be able to optimize the trim and list of a ship based on current sea conditions, thus improving fuel efficiency. We will also seek to minimize fuel consumption by better monitoring and modifying the ship's speed and course, taking into consideration the real time wind, current, temperature, and overall sea conditions.

Since 60 percent of our fuel use is spent on propulsion, the most effective way to reduce the emissions from our fleet is to reduce the amount of fuel consumed by propulsion. A few years ago, we began tracking and reporting data from every ship and every voyage to help us understand exactly how much fuel is being used by ship and itinerary. By inputting this historical data into our deployment tools, we can then create

more fuel-efficient itineraries moving forward.

The speed curve graph below (Figure 3) is a snapshot of the type of data we are collecting and what it tells us. As indicated in the graph, a ship sailing at nine knots will burn up to 2.9 metric tons of fuel per hour. If the speed is increased to 18 knots (a 100 percent increase), it might be expected that the ship would burn 100 percent more fuel. In fact, the ship will actually burn more than 6.4 metric tons of fuel per hour, which is a 120-percent increase. Sailing at 21 knots (a 133-percent increase) will increase fuel consumption to eight metric tons per hour; an increase in fuel of 176 percent. Thus this data shows us that slower speed itineraries will not only reduce our fuel expense, but will also have a direct impact on reducing related emissions.

**Figure 3 – Speed and Fuel Consumption**



We are also focused on reducing the heat produced and the energy consumed by our lighting. We are progressively replacing halogen and incandescent light bulbs with LED and compact fluorescent lights. These new bulbs not only use up to 80 percent less energy, but both LEDs and compact fluorescent bulbs last much longer than halogen and incandescent bulbs, which allows us to reduce the number of discarded bulbs and improve our footprint regarding solid waste. These bulbs can also be recycled or returned to the vendor to be rebuilt, instead of land-filled like incandescent bulbs. We are also making strides with energy reductions through our air conditioning systems. The majority of Celebrity's Millennium-class and Royal Caribbean International's Radiance-class ships have the ability, when in cold water climates such as Alaska and the Baltic, to reduce approximately one megawatt of their energy consumption by cooling the chiller water using low-temperature sea water, instead of running one of their air conditioning compressors. This equates to roughly four-to-five metric tons of fuel savings per ship per day, which is the approximate equivalent of the daily energy consumption for 600 average homes in the United States.

Other efficiencies in heating, ventilation and air conditioning have been achieved through the application of solar window film on all ships in our fleet. The solar film helps keep the ships cooler and reduces the load on our air conditioning, resulting in reduced fuel consumption and associated emissions. Window tinting also allows natural light to enter the ship while filtering 99.9 percent of ultraviolet rays, giving the added benefit of protecting interiors and furnishings from sun damage, thus cutting back on future waste.

On land, our LEED-NC Gold-certified call center in Springfield, Oregon, where 400 of our employees are located, was designed with a continuous skylight running the length



*Jewel of the Seas*



Our LEED-NC Gold-certified call center in Springfield, OR.

### What is LEED certification?

The LEED® green building certification program is a voluntary, consensus-based national rating system for buildings designed, constructed and operated for improved environmental and human health performance. LEED® addresses all building types and emphasizes state-of-the-art strategies in five areas: sustainable site development, water savings, energy efficiency, materials and resources selection, and indoor environmental quality. Certification is granted by the United States Green Building Council (USGBC), which is a nonprofit organization committed to a prosperous and sustainable future by means of cost-efficient and energy-saving green buildings.

of the barrel vault roof, to maximize the available natural light and help minimize energy usage. The building also has an innovative floor design, which includes an energy-efficient under-floor air distribution system that allows occupants to control air flow at their specific work areas. To further reduce their carbon footprint and eliminate any potential chemical contamination to the pristine location, the facilities team chose to power their back-up generator with 100 percent biodiesel made from canola oil. Our next goal is to find a local supplier who can provide recycled cooking oil for fuel in place of virgin canola oil.

Our crew members are vital to our energy conservation efforts and are diligent in helping to reduce energy consumption. When staterooms are empty, they help guests conserve energy by moving thermostats to a neutral position and ensuring balcony doors are closed and lights are turned off. Similarly, automated climate-control and lighting systems are being integrated in onboard public spaces, where feasible.

We encourage our guests to participate in energy-saving initiatives by asking them to promptly turn off water and lights throughout their daily activities. This encouragement is given through signs in staterooms, information in announcements and onboard television programming, and through daily onboard newsletters.

## AIR EMISSIONS – WHERE ARE WE NOW?

Comments in this section pertain to Azamara Club Cruises, Celebrity Cruises, Royal Caribbean International and Pullmantur, CDF Croisieres de France and TUI Cruises.<sup>1</sup> In 2009, our greenhouse gas (GHG) footprint was 4,108,556 metric tons, which equates to 0.14652 metric tons of carbon dioxide equivalents (CO<sub>2</sub>e) per APCD. This figure, which includes both direct emissions from our ships and indirect emissions from electrical consumption at our shoreside facilities, represents our GHG footprint, including carbon dioxide (CO<sub>2</sub>), methane, and nitrous oxide emissions, as well as our total refrigerant losses.

The vast majority (97 percent) of our direct GHG emissions come from the burning of fuel in our engines – both for propulsion and to generate electricity for onboard usage. We also contribute to our GHG releases when we incinerate waste, use oil-fired boilers to produce steam and through inadvertent releases of refrigerants. We are in the process of developing a fleetwide tool that will more accurately capture both incineration and refrigerant releases. Until that tool is completed, our reported figures are based on the best data available.

As a responsible company dedicated to *continuous improvement*, we seek to be as transparent as possible in reporting our GHG emissions. Reporting on GHG emissions is a complicated and challenging business; the science and the reporting standards are continually evolving. Today, the most internationally accepted and respected reporting protocols are the ISO 14064 standards and the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD) GHG Protocol standards.

Since we reported on our GHG emissions last year, we have invested in formal training for employees from our Environmental Stewardship Department on these standards for GHG inventory accounting. What we learned from this training was that the emissions information published in our *2008 Stewardship Report* did not include the carbon dioxide equivalents (CO<sub>2</sub>e) of methane and nitrous oxide in our total GHG footprint. We have included these figures in our 2009 GHG totals, and we have recalculated



our 2008 GHG footprint based on these accounting procedures. In addition, our 2008 published data included our use of biofuels in the total emissions figure. To report in accordance with the ISO standard, carbon dioxide data from biofuels use has now been removed from the total figure and reported separately. Our recalculated 2008 GHG footprint is now 3,817,911 metric tons, equivalent to 0.14470 metric tons of CO<sub>2</sub>e per APCD. Our 2009 footprint is also slightly higher than the 2008 numbers because we have included indirect emissions from electrical consumption and refrigerant releases from the Pullmantur fleet that we did not actively track prior to 2009. All ships in our fleet are now included in our GHG calculations.

Refrigerant releases from our air conditioning and refrigeration systems can have undesirable environmental impacts both through ozone depletion and, as greenhouse gases, through contributions to climate change. Refrigerant losses can result from two main types of system failures: Large releases, such as from broken pipes or tubes due to damage, vibration, corrosion, etc., or smaller losses from leaking valves, gauges and seals. Both types of release demand constant maintenance in order to detect, repair and, ideally, prevent losses. We also have an aggressive loss-prevention program. Fortunately, our efforts are paying off. In 2009, we reduced our refrigerant loss on our RCL ships by approximately 20 percent from 2008 levels, and 33 percent from 2007 levels. Our total refrigerant losses equaled 0.00341 metric tons of CO<sub>2</sub>e per APCD.

For the cruise and shipping industry, there are three additional regulated emissions which are not considered to be greenhouse gases: oxides of nitrogen (known as NO<sub>x</sub>), sulfur dioxide (known as SO<sub>x</sub>) and particulate matter (known as PM). Our total NO<sub>x</sub> emissions in 2009 were 60,329 metric tons, or .00217 metric tons per APCD. SO<sub>x</sub> emissions totaled 55,493 metric tons, or .00199 metric tons per APCD, while PM emissions were 6,848 metric tons, or .00025 metric tons per APCD. This represents a 0.7 percent reduction of NO<sub>x</sub> and increases of SO<sub>x</sub> and PM by 1.9 percent and 1.5 percent, respectively, over 2008 emissions. The increases of SO<sub>x</sub> and PM are directly related to the cessation of our biofuels initiative, which took place from 2006 through 2008 (see sidebar on the Paradox of BioFuels, page 24).

## ENERGY AND AIR EMISSIONS – WHERE ARE WE GOING?

As an environmentally conscientious company, we are setting rigorous emissions targets for ourselves. In keeping with our corporate policy of *Above and Beyond Compliance* – which means doing more than required by regulations – our immediate goal is to reduce annual fuel consumption per APCD by at least 2.5 percent, setting more aggressive targets as we develop new technologies. In the longer term, we aim to reduce our overall greenhouse gas footprint by one-third per APCD by 2015, as compared to 2008 levels.

Some examples of strategies we are using to achieve our goals include:

- Building increasingly more fuel-efficient ships. Our new ships are being designed to use considerably less energy per APCD.
- Giving even greater attention to itinerary planning, both now and for the future, in terms of timing, speeds and distances traveled.
- Adjusting arrival and departure times at some ports of call, without affecting guest experiences, so ships can save fuel while sailing to their next destination.
- Optimizing the speed of our ships while at sea, to gain their greatest fuel efficiency.

### Air Emissions

The four key air emissions that are targeted for reductions, either by governmental regulations or through our internal corporate goals, are carbon dioxide (CO<sub>2</sub>), sulfur oxide (SO<sub>x</sub>), nitrogen oxide (NO<sub>x</sub>) and particulate matter. During the combustion process, the carbon and sulfur present in fossil fuels are oxidized, or fused with oxygen, creating SO<sub>x</sub> and CO<sub>2</sub>. Nitrogen makes up some 80 percent of air and is virtually inert at normal temperatures and pressures. However, at the temperature and pressures prevailing in the internal combustion chamber, it combines with oxygen, making NO<sub>x</sub>. Particulate matter is the leftover hydrocarbons and other matter in fossil fuel that is not burned off during the combustion process. All of these are harmful when emitted into the atmosphere.

### Direct and Indirect emissions

Direct greenhouse gas (GHG) emissions, also referred to as Scope 1, occur from sources that are owned or controlled by the company, for example, emissions from combustion in our ships and vehicles as well as emissions from chemicals used with our equipment, such as refrigerants. Indirect, or Scope 2, GHG emissions are consequences of the activities of the company but occur at sources owned or controlled by another company, e.g. emissions from generation of the electricity that is used at our shoreside facilities.

## POINT OF VIEW

**Solar Panels on Oasis of the Seas**

As part of our continuing effort to test new energy-saving technologies, Royal Caribbean International's *Oasis of the Seas* was outfitted with 550 advanced thin-film solar panels that can generate enough power to supply the Royal Promenade. The panels were installed by BAM Solar Power, a small Florida-based company.

*"This demonstrates Royal Caribbean International's commitment to environmental protection and the company's forward-thinking approach to reducing their consumption of fossil fuels. While much attention is given to the ship's industry-leading advancements, Royal Caribbean International has shown that luxury and the environment do not have to be at odds and that 'going green' makes sense. If you can meet a portion of your energy needs at a predictable upfront cost, that is very good for the company's bottom line. It also adds a new dimension of comfort for the customers, knowing that their vacation on Oasis of the Seas has a reduced impact on the environment. We are inspired by Royal Caribbean International's leadership in this area and are honored to help them achieve their goals."*

– Andrew Rasken,  
President, BAM Solar Power

- Meeting power needs with clean energy sources such as solar panels.
- Conducting active research into long-term, clean power plant replacement technologies.

Our company has focused its efforts on minimizing the amount of energy consumed onboard our ships in order to reduce air emissions. Currently, the selection of commercially available clean technologies is limited for marine applications. However, we continue to work with several organizations that are aggressively working to develop and test different technologies that can be used on ships.

We are in the final phase of planning for a pilot test of exhaust gas scrubbing technology that addresses sulfur dioxide, nitrogen oxide and particulate matter in our exhaust emissions. These systems use water to clean emissions before they can be released into the air. This results in wastewater that would then undergo thorough onboard cleaning before being discharged. The intent is to achieve this with no in-port water discharges and no at-sea discharges that exceed IMO wastewater criteria.

In recent years, there has been increased attention on the relative merits of having a cruise ship "plug-in" to utilize shoreside power while docked in a port. This technology, which is called "cold ironing," clearly has the potential to help reduce the overall sulfur dioxide, nitrogen oxides and particulate matter generated by a cruise ship while in port. However, today, this potential benefit has several limitations. RCL ships spend most of their time cruising, versus docked in a port. While cold ironing holds promise in reducing a ship's emissions while it is in port, it offers no opportunity for environmental benefits when a ship is not docked. In addition, shoreside plants that generate power for cold ironing do not always produce power in a manner that is cleaner than the power that can be produced onboard a cruise ship. What's more, today, cold ironing opportunities are extremely limited. RCL visits approximately 400 different ports of call each year, and relatively few (believed to be only four) offer cold ironing connections with sufficient power to adequately supply a cruise ship. At present, given these and other challenges, as well as the near-term promise being shown by other technologies (some of which are highlighted in this *2009 Stewardship Report*), RCL is currently pursuing solutions that would benefit the environment not only while our ships are in a port of call, but also while they are cruising. RCL will continue to actively consider cold ironing as well as other emerging technological opportunities as we aggressively evolve our energy and air emissions strategy.

We continue to work with engine and propeller manufacturers to develop new approaches to propulsion systems, and with naval architects and hull coating manufacturers to develop new hull shapes and hull smoothness techniques, all of which can result in significant energy savings. We will also work with suppliers to advance current power technologies and assess practical new-generation technologies as they evolve.

We are also committed to looking for cleaner ways to provide power when in ports, recognizing the need to reduce emissions in highly populated areas. However, in this effort, we will assess all opportunities in the context of overall global emissions and other environmental considerations, rather than solely on local impact.

Finally, we will continue to improve our reporting and measurement frameworks so we can quickly identify areas to improve and highlight opportunities across our fleet.





*Serenade of the Seas*, New York, USA

# WATER AND WASTEWATER



Potable Water Treatment

## **WATER – WHAT ARE THE ISSUES AND WHAT HAVE WE BEEN DOING ABOUT THEM?**

Our ships require approximately 50 to 60 gallons of fresh water per person per day, for drinking and for use in showers, sinks, toilets, galleys, pools and spas. We obtain fresh water for our ships in one of two ways: either by producing it onboard or by acquiring it from local sources in ports, known as bunkering. Fresh water is only bunkered in locations that have sustainable fresh water resources, from both a community and environmental perspective, and when the option is beneficial for the ship in terms of fuel consumption.

The majority of fresh water is produced onboard, using steam desalination or reverse osmosis to convert sea water into fresh potable water. Steam desalination systems use evaporators that boil sea water and create steam. The heating is done in a vacuum, in order to minimize the energy needed to boil the sea water. Although the process can require high levels of energy consumption, whenever possible we use waste heat from diesel engine cooling water and steam from exhaust gas boilers (waste heat recovery) to heat the water, in order to avoid having to burn additional fossil fuel. The steam vapor is then condensed into fresh water using the relatively cool sea water.

Reverse osmosis systems operate by pumping sea water under very high pressure through a semi-permeable membrane. The membrane allows only the water (H<sub>2</sub>O) molecules to pass through, while the salt molecules are rejected and discharged back into the sea. The reverse osmosis systems being installed on our ships today are much more efficient than previous units; today's systems provide the same amount of water for only about 35 percent of the electricity consumption of models from only a few years ago.

The challenge is to implement conservation measures to reduce water consumption, and thus energy use, without negatively affecting the comfort of our guests. The typical “water footprint” of an average person living in the United States is 80 to 100 gallons per person per day. Thus, there is a 20 to 50 gallon savings of fresh water per person per day on our ships, when compared to our average guest’s use of water at home.





Desalination system



Left: Potable water analyzer, right: potable water bunkering

## WATER – WHERE ARE WE NOW?

We continue to develop and install innovative water-saving technology and procedures for use onboard our ships. For example, our newest ice makers use 65 percent less water than previous machines, saving energy and fresh water manufacturing costs in the process of making ice cubes. On Celebrity Cruises ships, we have replaced the ice beds in buffet areas with chilled river rocks, reducing both water use and energy consumption needed for ice production. As an added bonus, from a guest perspective, the rocks are much more attractive than the ice beds.

We have installed sink aerators and low-flow showerheads in crew and guest cabins with as little impact on our guests as possible. We are also using water-reduction technology in kitchens and laundry facilities, including reduced-flow dishwashers, sink aerators and low-consumption laundry equipment. Our laundry facilities reuse condensate water from the ships' air conditioning units for washing, which can easily eliminate the need for thousands of gallons of fresh water per day, fleetwide.

To ensure that these innovative systems are implemented and used properly, we provide regular training and motivation programs to crew members onboard our ships, and request the help of our guests in saving water wherever possible.

## WATER – WHERE ARE WE GOING?

As part of our progressive replacement program, we will evaluate opportunities for replacement of the older fresh water manufacturing systems, where it makes environmental, operational and financial sense. Looking ahead, we will continue to leverage new technology, enhanced design, and improved practices to achieve greater freshwater conservation, and also lower our overall energy consumption.

### DID YOU KNOW?

The average person in the United States uses 80 to 100 gallons of water per day. On our ships, we use about 50 to 60 gallons of water per person per day.



## Ballast water

Ballasting is the maritime practice of taking on and discharging weight, usually sea water, to ensure that a ship can be safely, efficiently and comfortably operated given a wide range of loading conditions. Cargo ships and tankers take on (ballast) and discharge (deballast) huge amounts of water when in port, to maintain stability and compensate for the significant weight changes they experience when loading or unloading cargo or oil. Cruise ships ballast much smaller volumes of sea water to compensate for weight lost due to fuel consumption and, to a lesser extent, potable water consumption. Our ballasting is generally done while underway and our voyages are typically within the same ecological zone.

The primary environmental concern related to ballasting and deballasting is the potential for the transfer of damaging non-indigenous or invasive species from one ecosystem to another. There are two primary means to reduce or eliminate the transfer of these invasive species. Some ships implement ballast water management practices, either by holding ballast water onboard or using at-sea water exchange, while others use onboard ballast water treatment technology.

The cruise industry has been a leader in developing and installing ballast water treatment technology. Celebrity Cruises took the initiative by installing this experimental technology on *Celebrity Mercury* in order to advance the science of ballast water treatment. In addition to dedicated ballast water treatment systems, the cruise industry is continually evaluating the practicality of using other liquid weight, such as that produced from Advanced Wastewater Purification systems, as ballast instead of sea water. In a recent development, ships have been designed to be effectively “ballast-free.” One such example is *Oasis of the Seas*, which, based on her early operational history, has shown that her stability is such that she can maintain more than sufficient stability, trim, and freeboard without resorting to discharging sea water ballast in port in order to conduct fuel or potable water bunkering.

We are looking to pilot a new energy efficiency concept that incorporates water production and heat energy recovery improvements. If the entire concept is proven, this could reduce overall energy consumption by approximately 15 percent and water production costs by as much as 80 percent. The system uses highly efficient reverse osmosis systems in lieu of waste heat steam evaporators; with this new concept the ship will be totally self-sufficient for fresh water. The real breakthrough is in the use of the now available waste heat to drive small steam turbines and Organic Rankine Cycle (ORC) plants, which convert the waste heat from our diesel engines to electric power. This technology should allow us to reduce the fuel needed to produce fresh water and electricity onboard with a corresponding reduction in air emissions. Because of some of the methods used in this concept, this approach may also allow us to meet all future ballast water regulations as a byproduct of this operation. Our hope is that in the future, we may be able to treat our ships’ ballast water with only minor onboard modifications and no adverse environmental effects.

## WASTEWATER – WHAT ARE THE ISSUES AND WHAT HAVE WE BEEN DOING ABOUT THEM?

Much like other types of ships, cruise ships generate a number of different types of wastewater, including bilge water, graywater and blackwater, albeit in differing amounts dependent upon the waste stream. Ships’ discharges are regulated by both international and national legislation. In some cases, this regulation extends down to the local level, even to small areas inside state waters in some cases. As environmental concerns have risen, and regulations have changed, so have the types and capabilities of ship-based equipment.

### Bilge water

Bilge water is a mixture of liquids, primarily fresh water, collected from machinery spaces and internal drainage systems. The bilge, located in the engine room at the lowest part of the vessel, collects water, cleansers and mechanical fluids from operational sources. These sources include evaporators, potable water treatment equipment, condensation, technical rooms, sea-water cooling systems, propulsion systems and main engines. Bilge water is collected and periodically pumped into special holding tanks. If left in place, these fluids may pose a stability problem or release vapors that expose engineers and other workers to a health risk. Consequently, this mixture of fluids is processed to remove contaminants of concern, and prior to discharge, the resulting water is treated to levels that exceed both U.S. and international regulations.

In keeping with our *Above and Beyond Compliance* policy, since 1998, our ships have been cleansing bilge water to reduce its oil content to less than 5 parts per million. This means that our discharged bilge water is three times cleaner than the 15 parts per million allowed by international regulations. We also restrict the discharge of bilge water to times when our ships are 12 nautical miles (22.22 km) from shore.

In 2009, we completed the fleetwide installation of an additional oily bilge water discharge protection system. Nicknamed the “White Box,” this suite of equipment has been placed onboard all ships in the Royal Caribbean International, Celebrity Cruises and Azamara Club Cruises fleets. This upgrade affords a significant level of protection to prevent the accidental or intentional release of non-compliant bilge water. The system incorporates an additional oil content analyzer, a digital recorder, an automatic

valve to control the flow of treated water, a flow meter to provide accurate volumes discharged, flow switches to ensure that the treated water is properly tested, and a locked/secured enclosure that sets off an alarm and stops overboard discharge if opened.

Contaminants filtered from bilge water, and oily sludge generated from ship operations, are retained in a series of sludge tanks. U.S. and international law prohibits the discharge of sludge at sea, but no specific treatment is required upon landing. Our company goes *Above and Beyond Compliance* by transferring oily sludge to approved waste contractors for recycling. This sludge is then used for factory heating, asphalt or cement production and energy generation. Although it is not wastewater, we land our used engine lubricating oil along with the oily sludge to vendors for processing and reuse. This recycled oil can then be used in place of new oil that would have to be found, extracted, refined and transported, thus further protecting the environment.

### *Graywater and blackwater*

The International Maritime Organization, in its International Convention for the Prevention of Pollution from Ships, commonly referred to as MARPOL, defines graywater as drainage from showers, washbasins, laundry and dishwashers. The 1972 U.S. Clean Water Act includes galley (kitchen) water and bath water in its definition.

In both definitions, the drainage for these systems, along with wastewater incidental to the operation of the ship (i.e. washing decks, draining pools and spas, and condensate from air-conditioning systems) are also classified as graywater.

Blackwater is water from toilets, urinals and medical facilities. It is collected separately from graywater and other waste liquids, since blackwater contains potentially more harmful bacteria that require processing by a Marine Sanitation Device and/or an Advanced Wastewater Purification (AWP) system. All Marine Sanitation Devices and AWP systems that are installed on our ships are certified and approved by the U.S. Coast Guard or under standards and methods approved by the International Maritime Organization.

In 1999, we began the research and development needed to install and operate Advanced Wastewater Purification systems on our ships. These systems treat blackwater and graywater and produce an effluent that is cleaner than what is required by international sewage regulations and what is discharged from most municipalities.

We are installing these systems onboard all of our RCL ships, at a cost of more than \$150 million, none of which is required by current regulations or laws.

These systems further illustrate our company's policies of *continuous improvement* and going *Above and Beyond Compliance*. Our goal is that every ship in our fleet will be equipped with an Advanced Wastewater Purification system and we will only discharge water that exceeds leading municipal wastewater treatment standards.



Laundry equipment is a source of graywater

Since the release of the *2008 Stewardship Report*, we have made significant advances in our goal to have all RCL ships equipped with an AWP system. We have added six new ships to the list of those with operating AWP systems, although there remain substantial operational and technical challenges. The installation and commissioning of an AWP system is not a matter of merely selecting an off-the-shelf piece of equipment. This is true even for those systems that have proven themselves in land-based applications. AWP systems are still a new and difficult technology that has proven to be harder to successfully implement on a cruise ship than many of its proponents expected. For example, in 2009, one of the promising, innovative systems that we extensively evaluated and had hoped would work effectively, proved unsuitable as designed. While this trial and indeed our years of effort have been disappointing, we have learned a great deal about the science and technology involved. More importantly, this experience will not deter us from our ultimate goal.

Figure 3 – AWP Moving Bed Bio-reactor System (Hydroxyl CleanSea® Cruise Ship System)

**Advanced Wastewater Purification Systems**

There are a number of different types of AWP systems. These include:

- **Moving bed bio-reactors**, which mix all wastewaters and use a primary screening system to remove large solids. The wastewater is sent to a bio-reactor, where much of the organics and nutrients are consumed by beneficial bacteria. From these bio-reactors, wastewater is moved to a second stage of solids removal where coagulants bind the remaining solids and make them float for easier removal. The wastewater then flows through a final polishing filter and then an ultraviolet light system, where the water is disinfected prior to discharge (see Figure 3, this page).
- **Membrane bio-reactors**, which mix all wastewaters and initially use screens to remove large solids. Wastewater is sent to a bio-reactor, where much of the organics and nutrients are consumed by beneficial bacteria. In these bio-reactors, membranes are used to filter wastewater and leave behind all remaining solids and, in most cases, all bacteria. The treated water is processed through an ultraviolet system that disinfects it prior to discharge (see Figure 4, next page).
- **Advanced oxidation systems**, which remove progressively finer particles, using screens and membranes at every stage. Once most of the solids are removed, the wastewater is sent to an advanced oxidant contact chamber, where any remaining organic material is oxidized with ozone and ultraviolet energy, along with the resulting advanced oxidants.

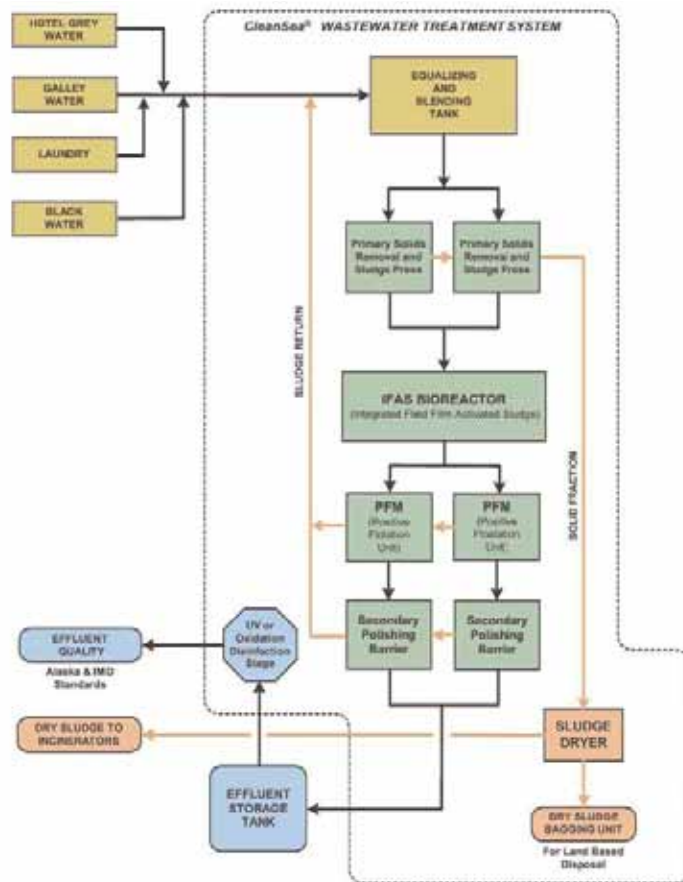
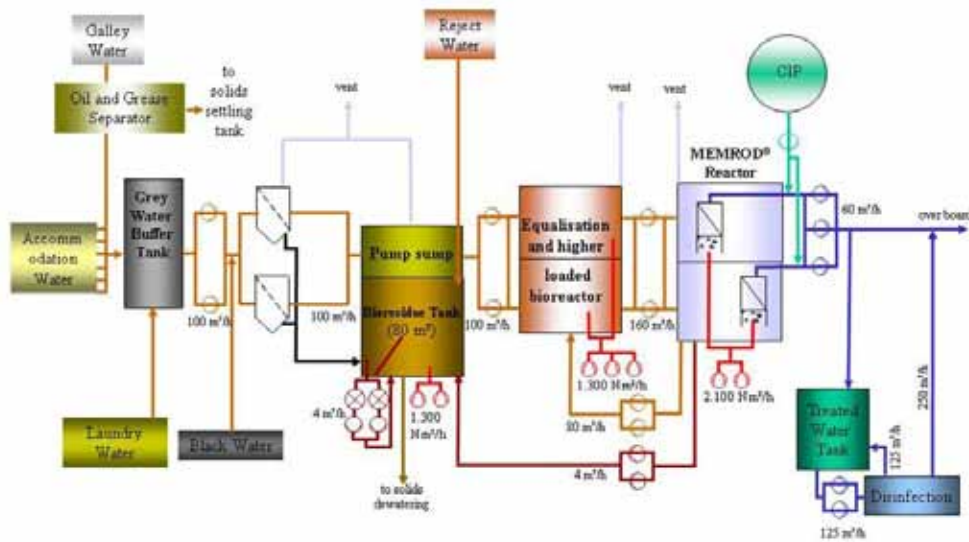




Figure 4 – AWP Membrane Bio-reactor System (Krüger Wabag)



In keeping with our policy of going *Above and Beyond Compliance*, our internal discharge policies for graywater and blackwater are stricter than governmental regulations. For example, although U.S. and international laws allow graywater to be discharged from ships inside of 12 nautical miles from land in many locations, since 1998, our company policy has restricted discharge of graywater to outside 12 nautical miles from land in all areas of the world.

Similarly, our blackwater discharge policy exceeds U.S. and international regulations, which are mandated through the U.S. Clean Water Act and MARPOL-Annex IV, respectively. The Clean Water Act mandates the use of a Marine Sanitation Device on all vessels equipped with installed toilets to prevent the discharge of untreated or inadequately treated blackwater. Each of our ships has a U.S. Coast Guard-certified Type-II Marine Sanitation Device, and/or an Advanced Wastewater Purification (AWP) system or an International Maritime Organization-approved sewage treatment plant to treat blackwater. MARPOL standards require ships to discharge untreated blackwater outside 12 nautical miles and at a speed of not less than four knots (to ensure effective mixing); our company standard is to only allow discharges of treated blackwater outside 12 nautical miles and only at a speed greater than six knots.

Recent scientific studies by the U.S. EPA and Alaska Department of Environmental Conservation of the composition and dispersion of discharges of graywater and treated blackwater in Alaska concluded that current practices by major cruise lines result in high dispersion levels and minimal negative impact on the environment. Traveling at six knots, a cruise ship's discharge of graywater was found to be as much as 32,000 times more diluted than that from a stationary ship.



Components of the on-board Advanced Water Purification System (AWP)

## WASTEWATER – WHERE ARE WE NOW?

Today, all RCL ships have at least two oily-water separators and two oil-content meters to monitor bilge-water discharges. Each RCL ship is now also equipped with a White Box to record information on the operation of the oily-water separators and discharge protection unit, including level of oil parts per million, valve status, flow and locations of discharges. Only the Chief Engineer has the key to the White Box, to minimize the possibility that any tampering can take place.

We are investing more than \$150 million in Advanced Wastewater Purification systems and are determined to complete a fleet-wide installation. These technologically advanced systems clean wastewater to a quality that far exceeds international maritime and U.S. standards. Our Advanced Wastewater Purification system installations are designed to treat wastewater to a level twice as clean as the already stringent U.S. standard. These systems further illustrate our company's policy of *continuous improvement*.

We currently have a total of 22 ships that are equipped with an AWP system. Of these, 17 ships have systems that are fully installed and operational. Two more, *Rhapsody of the Seas* and *Celebrity Infinity*, are slated to be completed in 2010. The remaining three ships with AWP's, *Celebrity Mercury*, *Mein Schiff* (formerly *Celebrity Galaxy*) and *Vision of the Seas*, are equipped with early, first-generation AWP systems that will likely need to be completely remodeled or removed and replaced with the latest systems, in order to meet our corporate standards. In 2010, we will be installing four additional AWP systems, on our two Azamara Club Cruises ships and on two ships in Royal Caribbean International's Voyager Class.

We actively participate in the Ocean Conservation and Tourism Alliance, created by the Cruise Line Industry Association and Conservation International. One aspect of this partnership is to develop best practices for wastewater management, including taking advantage of technological advances that minimize the impacts of ship operations. In cooperation with an Alliance initiative to develop global mapping of sensitive marine areas, we are incorporating the identified areas into our planning processes to ensure that all treated wastewater is discharged outside of sensitive marine areas. This initiative, which is being implemented now, will allow us to overlay these sensitive areas onto existing electronic onboard navigational systems and assist us in avoiding discharges in these areas of concern.

## WASTEWATER – WHERE ARE WE GOING?

Our goal is to only discharge water into the ocean that exceeds leading municipal wastewater treatment standards. This commitment requires a significant investment of time and resources and is an evolving process. We believe the Advanced Wastewater Purification systems we've selected are the best technology currently available. We look forward to continuing our partnership with suppliers in the development of these state-of-the-art systems. We continue to investigate technologies and processes that would allow us to expand the list of contaminants that we seek to remove, to include nutrients and some metals commonly found in domestic wastewater.



Alaska, USA





# WASTE AND CHEMICAL MANAGEMENT

## DID YOU KNOW?

The average person in the United States generates about 4.6 pounds of solid waste per day. On our ships, we generate only about 1.4 pounds of solid waste per person per day.

## **SOLID WASTE MANAGEMENT – WHAT ARE THE ISSUES AND WHAT HAVE WE BEEN DOING ABOUT THEM?**

We face a number of challenges related to the management of solid waste on cruise ships. These include manual sorting of recyclables, making space onboard to store materials destined for recycling and donation, and finding facilities capable of properly handling specific waste streams in the places where we operate. Our ships' crew members work diligently to reduce, reuse and recycle all materials they can, and company policies, procedures, equipment and training ensure that no solid waste goes into the ocean.

When we dispose of waste items off our ships, they are landed as compacted recyclables, donations, incinerator ash, or landfill waste. Recyclables present a particular challenge, as, in some instances, our ships prepare waste materials for recycling only to have them end up going to landfills, because the port community does not have adequate recycling facilities. In these instances we try to work with local communities to improve recycling opportunities or, where possible, we store the recyclables until we can off-load them in a port with adequate facilities.

## **SOLID WASTE MANAGEMENT – WHERE ARE WE NOW?**

Through shipboard incentive programs and the education of guests and crew members, our ships are champions for reducing, reusing and recycling waste materials. In 2008, we recycled and reused more than 12 million pounds of materials through continued emphasis on recycling and donations of high-quality materials. With further efficiencies in 2009, we increased this total to more than 14 million pounds of materials recycled and reused (see Figure 5).

## REDUCE

The first step in managing waste is to reduce the amount of material that comes onboard our ships. We are working with our suppliers to green our supply chain, reduce packaging materials and use more sustainable resources. By aggressively challenging our core vendors to monitor the quantities ordered, minimize packaging and continue to increase their bulk size units, we have reduced our waste footprint. In 2007, the amount of waste landed ashore from our ships was more than two pounds of solid waste per APCD. In 2008, through our improved waste management practices, we reduced this total to 1.5 pounds per APCD, and in 2009 we continued to reduce this total to 1.4 pounds per APCD (see Figure 6). As a point of comparison, the average solid waste footprint per person in the United States is approximately 4.6 pounds per day.

## REUSE

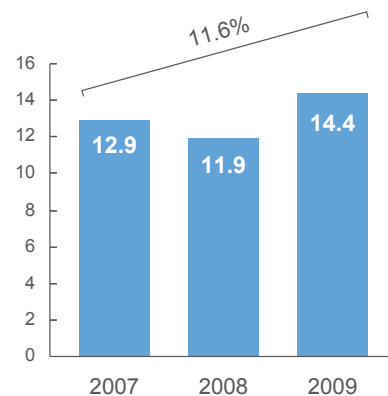
To further cut back solid waste generation, we are working with our suppliers on container return programs, where containers from concentrated cleaning supplies, food products and other materials can be returned for reuse. With one vendor, we have developed a container rebate program whereby ships are able to return empty five-gallon containers for a \$5 credit toward their next purchase. With another vendor we are purchasing concentrated chemicals in 55-gallon drums that are returned to the vendor once a year for refill. Programs like this reduce packaging waste, save resources and reduce transportation costs.

We have established a donations database in order to provide the fleet with outlets that will accept quality items, such as mattresses, sheets, towels and furniture, for reuse. Clothes, shoes, accessories, games and other items donated by our crewmembers are separated and placed in large boxes on each ship for our donation program. In 2009, Royal Caribbean International replaced bed linens and pillows on its ships and donated the old items to Habitat for Humanity to support their community projects. Linens that are not suitable for donation are not wasted: they are washed and cut into rags for use in the engine room and photo lab.

Through our donation program, we are working with organizations such as Seafarers' House at Port Everglades, Florida ([www.seafarershouse.org](http://www.seafarershouse.org)); ReThink + ReUse Center in Miami, Florida ([www.rethinkandreusemiami.org](http://www.rethinkandreusemiami.org)); Goodwill Industries in San Diego, California ([www.sdgoodwill.org](http://www.sdgoodwill.org)); Habitat for Humanity ([www.miamihabitat.org/restore](http://www.miamihabitat.org/restore)); and others.

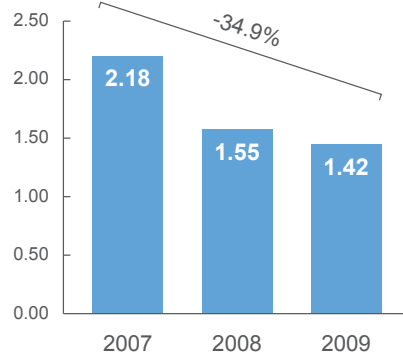
We are also continuously striving to green our newbuilding and construction projects, for both ships and shoreside offices. For example, at our sustainably designed Springfield, Oregon, campus all workstation panels were made with a new generation of corn and vegetable starch polylactic acid, or "PLA," which is a 100-percent renewable resource that can be commercially composted. The Springfield offices also have state-of-the-art flooring that consists of 70 percent pre-consumer recycled wood fiber content and is independently certified by Certification Systems, Forest Stewardship Council (FSC) and GREENGUARD Environmental Institute (GEI). The construction of this campus involved 13 percent recycled materials, 66 percent sustainably harvested wood and 23 percent locally produced material. Every aspect of this project was reviewed and more than 97 percent of the site's construction waste was diverted from landfills for reuse.

Figure 5 – Recyclables and Donations Landed Ashore (millions of pounds)



(Information: 2007-2008 waste reduction of 7.8% and in 2008-2009 an increase of 21.6%).

Figure 6 – Solid Waste per Average Passenger Cruise Day (pounds)



(Information: 2007-2008 waste reduction of 28.9% and in 2008-2009 continued reductions of 8.4%).



## Cork boards

Crew on *Liberty of the Seas* make message boards with leftover frames and corks for use throughout the ship. If they have enough materials collected, they award crew members and environmental organizations with a message board. This allows them to build something useful from waste materials.



## Recycled art competition

Taking the concept of trash to treasure to a whole new level, John Marshall, *Liberty of the Seas*' Environmental Officer, holds competitions to construct art from recyclables, and the winning projects are displayed at the ReThink+ReUse Center in Miami, Florida.



Reusable laundry bags for crew members

## RECYCLE

All trash onboard our ships is hand-sorted by our crew members to determine what can be recycled. Recyclable materials generated onboard our ships include glass, paper, cardboard, aluminum and steel cans, scrap metal, incinerator ash, plastics, toner cartridges, wooden pallets, batteries, fluorescent lamps, electronics, plastic wrap and kitchen grease.

Throughout our fleet, we are able to recycle approximately 30 percent of all waste in U.S. ports—an increase of 5 percent from 2008. We are diligently working to increase those numbers in the United States and abroad. Our most successful ships have been able to attain an 80 percent recycling rate of the total waste they land. That means that eight units of waste are recycled to two units going to the landfill.

Working with local authorities, vendors, conservation groups and recycling centers, we have agreements in 21 major ports with companies that receive separated and sorted material, including aluminum cans and scrap metal, for recycling. Recycling partnerships have been established in ten U.S. ports, six European ports, three Canadian ports and two Caribbean and South American ports.

Shipboard environmental teams collect and sort garbage into waste streams that are processed by various means and equipment. For example, the teams use depressurizers for releasing residual liquids from aerosol cans; compactors for processing plastic, cardboard, and metal; glass crushers; and fluorescent lamp crushers to separate mercury, aluminum and glass for recycling. Each ship is also equipped with specially designed climate-controlled storage facilities that allow them to hold recyclables until the appropriate and approved recycling hubs are reached. In 2009, crew mattresses were recycled (for their components) for the first time in the cruise industry.

We reward our crew members for their efforts to hand-sort and bundle recyclable materials for shoreside landing. Money earned from recycling rebates goes directly to crew welfare funds, thus boosting morale and increasing both crew participation and the amount of materials being recycled.

We continuously evaluate new technology to improve our tracking and monitoring efforts and also seek out the most effective waste-handling equipment to have onboard. We incorporate feedback from our Environmental Officers and waste-handling crews to determine the best equipment to meet their recycling needs today and in the future. In 2009, all vessels invested in pallet jacks with scales to more accurately track shipboard-generated waste and the amount recycled shoreside.

While we are extremely proud of the efforts of all our ships, some deserve special recognition. For example, *Celebrity Mercury* has been named Recycler of the Year by the Port of San Diego for three years in a row. This record has inspired friendly competition throughout the fleet, with the *Celebrity Infinity* achieving a 70-percent recycling rate of their total waste landed. By matching the stellar recycling performance of *Celebrity Mercury* and *Celebrity Infinity*, we will be able to meet our corporate goal to increase the volume of waste recycled by 50 percent by 2015.

## SOLID WASTE MANAGEMENT – WHERE ARE WE GOING?

We have ambitious plans for the future that include further reducing our overall waste impact, both onshore and offshore, to decrease waste going to landfill by 50 percent by 2015. To meet this challenge, we will develop new, innovative waste stream management practices, reducing the volume of solid waste generated by 35 percent. We will also seek partnerships with recycling and reuse facilities in all major ports of call, in order to reach our 2015 aspirational goals.

The company's waste treatment and disposal policy was updated near the end of 2009, directing crewmembers to further prioritize waste recycling. As part of this update, when items designated in the new policy for recycling are offloaded for disposal instead of recycling, corporate headquarters must be notified with the reason and corrective action plan. Further, in 2010 we will present each ship with their recycling potential based on an analysis of their itineraries, shipboard equipment, and recycling hubs. Each ship will be directed to attain stretch recycling goals in 2010 based on this analysis, and their progress will be tracked and shared fleetwide.

## HAZARDOUS WASTE MANAGEMENT – WHAT ARE THE ISSUES AND WHAT HAVE WE BEEN DOING ABOUT THEM?

Our commitment to effective environmental stewardship through our *Above and Beyond Compliance* policy includes our handling of hazardous wastes. These wastes have the potential to pollute ground water, soil and air when not properly managed. Hazardous wastes that must be addressed onboard include mercury from fluorescent bulbs; silver and chemicals from photography processing; perchloroethylene (perc) from dry cleaning; flammable liquids (solvents, lighter fluid, waste paints and thinners, and aerosol residuals); and lead nickel and cadmium from batteries. Additional special waste items include medical waste (e.g. needles), oily waste and lube oil.

Though we produce only very small quantities of hazardous wastes (we are a small quantity generator by U.S. standards), the potential for negative environmental impacts makes the management of hazardous wastes one of our highest priorities. Under no circumstances may these wastes be disposed in trash containers or systems for graywater (sinks and drains) and blackwater (toilets). Each of these special wastes has an appropriate handling and control process. Waste products are segregated into leak-proof containers and landed to an approved shoreside disposal facility, or, for some types of medical waste, incinerated onboard.

While the monetary cost is higher, recycling hazardous material is the most sustainable option. Therefore, wherever possible, we recycle waste that would be classified as hazardous if it were landed ashore as garbage. For example, we have invested in fluorescent lamp-crushers that allow for onboard separation of glass, mercury and metal end-caps. Each separate waste stream is then recycled. This waste management system is highly efficient, allowing us to recycle 99.9 percent of mercury from switches, lights and thermometers. Lead, lithium, nickel and cadmium are recycled through our battery recycling program. Ships reuse empty repurposed Department of Transportation (DOT) approved five-gallon chemical pails to hold the sorted batteries, saving the ship money and eliminating additional waste.

## POINT OF VIEW



**RCL has won the San Diego Recycler of the Year Award three years in a row, from 2007-2009.**

*"The City of San Diego has recognized RCL as an environmental leader in our community. They are a great partner with the City as we work to improve the quality of our environment for all of our citizens. Ms. Ginger Garte, the Senior Environmental Regulatory Analyst for RCL, has been a champion in increasing recycling and reuse efforts onboard the ships that port in San Diego."*

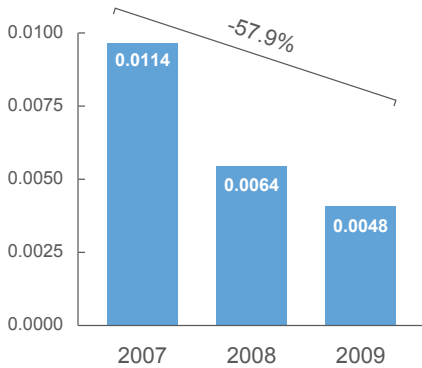
– Stephen Grealy, Deputy Director, Waste Reduction and Disposal Division, San Diego Environmental Services Department



*This device is used to drain all residual aerosol and product from aerosol cans, so that the empty metal cans can be compacted and recycled.*



**Figure 7 – Hazardous Waste per Average Passenger Cruise Day (pounds)**



(Information: 2007-2008 waste reduction of 43.9% and in 2008-2009 continued reductions of 25%).

In Europe, recycling opportunities for fluorescent lamps, batteries and electronics are limited, though the opportunities for recycling batteries and electronics are improving. Where there is no approved facility to recycle these items, when feasible, we work with our ships during their European season to package and store materials for recycling at ports with appropriate recycling facilities.

### HAZARDOUS WASTE MANAGEMENT – WHERE ARE WE NOW?

Hazardous waste is collected and stored onboard in designated storage areas until the ship reaches a port of call where it may be landed. Our hazardous waste is only handled by qualified contractors who comply with the due diligence program we have developed for approved hazardous waste vendors. Not only do these contractors meet or exceed all U.S. laws regarding disposal and handling of hazardous waste, but they must also fulfill additional requirements imposed by our company policies. In Europe, all our contractors are ISO 14001 certified, meaning they have met rigorous standards for environmental management.

We have implemented an electronic tracking system for our Hazardous Manifests. These manifests are posted to our internal public folders so that all Environmental Officers have access to upload and view documents. In keeping with our company policy and ISO 14001 certification, we maintain records of these manifests for three years.

As we continue to invest in new technology and reduce the chemicals used onboard, we have methodically been replacing perc dry-cleaning units with petroleum-based solvent units. The petroleum solvents are then either recycled or burned for energy recovery.

In 2008, we were able to realize a 44-percent reduction in the generation of hazardous waste onboard our ships. We continued to reduce hazardous waste by another 25 percent in 2009 (see Figure 7).

In 2009, we also partnered with key suppliers to reduce the chemicals stocked onboard, in addition to expanding our return-to-vendor program for expired and unused products, and reusable containers. Core suppliers accept these unused products and subsequently inspect and test them for resale.

In order to achieve further reductions of hazardous waste generated fleetwide, an annual review of each vessel is performed and posted for fleet review. Ships that have had excessive waste landings or have not consolidated their hazardous wastes are identified for improvement.



*Pallet jack with scale on Celebrity Century*

### HAZARDOUS WASTE MANAGEMENT – WHERE ARE WE GOING?

Through the use of our onboard scales (described above under Solid Waste Management), we have standardized the weights reported for each routinely generated hazardous waste. This has allowed us to catch and correct inflated weights previously reported and added to our total annual hazardous waste. Our hazardous waste profile library clearly defines the waste streams that are routinely generated, landed and disposed. Any hazardous waste not listed in the profile library must be cleared by the Environmental Stewardship Department to determine if additional options exist.

In 2010, the medical operations department will complete the replacement of all liquid x-ray processors with digital, thereby reducing the amount of liquid x-ray fixer that must be processed by our silver recovery units onboard. This is expected to achieve moderate reductions.

We also plan to eliminate smaller drums and offer only larger standardized drums for hazardous waste, which will help us improve management of this waste stream by both reducing landings and consolidating hazardous waste onboard.

## CHEMICAL MANAGEMENT – WHAT ARE THE ISSUES AND WHAT HAVE WE BEEN DOING ABOUT THEM?

Maintaining a clean and safe ship environment for our guests and crew requires responsible management of the purchasing, handling, distribution, use and disposal of hundreds of chemicals with varying degrees of hazardous properties. Our chemical management program reduces potential hazards to guests, crew and the environment through a process that effectively approves and regulates use and disposal of chemicals.

The process begins with a formal approval process, managed by our safety, medical and environmental experts, that identifies the right chemical for the intended purpose. Each chemical proposed for onboard use is then researched, to identify any potential health hazards (acute and chronic), safety factors (compatibility and flammability), and environmental impacts (acute and chronic).

Once reviewed, chemicals are included in an RCL Chemical List and are entered into a database, along with their Material Safety Data Sheets (MSDS) and the manufacturer's ratings for health, flammability and reactivity, as well as minimum requirements for personal protective equipment. The MSDS permits users to easily retrieve and review current information on the safe handling requirements of a particular chemical. Ships are only allowed to purchase RCL-approved chemicals, and our policy mandates that all chemicals must be stored according to the manufacturer's instructions, using an internal color-coding system based on the specific chemical hazards, and labels that contain identification, segregation and safety information. This program focuses on identifying the most sustainable and effective chemical products.

## CHEMICAL MANAGEMENT – WHERE ARE WE NOW?

In 2009, we fully launched the *Chemwatch* database to the fleet. This online database contains more than three million MSDS and provides instant access to information sheets in 25 languages; hazard communication supported by a team of chemical experts that is available to us by phone and e-mail, with easy-to-use pictographs; printable color-coded storage labels specific to RCL storage and labeling policies; and specific information for first aid, medical emergencies, firefighting and spills.

On page 46 is a *Chemwatch* Database Snapshot of a Mini-MSDS (one page) for Descale-It, translated into Greek. The webpage sidebar indicates the other available languages. The database is also fully compatible with anticipated legislation, including the United Nations Global Harmonization System for chemical hazard communication. Along with our chemical management policy implemented in 2008, we also now have

## POINT OF VIEW



### Taku Renewable Resources

Heather Hardcastle likes to think green. So does Royal Caribbean International. So when Heather approached the company about recycling its used cooking oil, the response was positive. Together, the Juneau, Alaska, fisherwoman and the cruise line worked out a protocol with the Coast Guard that resulted in the collection of about 6,000 gallons of used cooking oil last season.

“We felt it was a win-win situation, allowing us to not only recycle our used cooking oil but also to work with a local company leading the way in developing clean energy,” said Jamie Sweeting, RCL’s Vice President for Environmental Stewardship

The cooking oil experiment arose from a desire by Heather and her partner, Kirsten Walker, to turn commercial salmon waste into renewable energy. The two call their operation Taku Renewable Resources and secured a state grant in 2008. The grant helped pay for development of the cooking oil protocol and relationship building.

“Basically we were trying to figure out – legally and logistically – if it could be done,” Heather said.

Once Royal Caribbean International’s management said yes, Heather worked closely with Paul Turner, the Environmental Officer on *Serenade of the Seas*.

“We came up with a protocol to offload 275-gallon polyethylene tote tanks filled with cooking oil onto our tender. We use forks or harnesses to offload the tanks, which worked really slick. It was really important to the Coast Guard that we offload the whole container as opposed to pumping oil from the ship to the tender,” Heather said.

RCL is so pleased with the program that we plan to extend it to both Royal Caribbean International and Celebrity Cruises ships this season.



## Chemical Storage

The more than 1,000 different chemicals that we use onboard our ships can be stored safely and efficiently using our internal storage labels, which can be printed directly from the *Chemwatch* database. The labels, which have a color-coded border, indicate the product name, the recommended personal protection equipment, and the hazard communication data.

an electronic chemical approval and vetting system that promotes better management of onboard chemicals.



Working with *Chemwatch* in 2009, we implemented a Green Rating System for RCL shipboard chemicals that will allow us to analyze, and remove from shipboard use, chemical products of environmental concern.

In 2009, the U.S. Environmental Protection Agency (EPA) issued regulations controlling all vessel-to-water discharges under the Clean Water Act. These regulations require chemicals that could potentially be discharged into U.S. waters to be non-toxic, phosphate free, minimally caustic and biodegradable. As a result we have reduced the shipboard use of chemicals of environmental concern not just in the United States, but also worldwide, and we have incorporated these requirements into our company policy for all waters around the world. An added benefit to using “green chemicals” has been the reduction in the need for personal protective equipment and the subsequent disposal of this equipment.

## CHEMICAL MANAGEMENT – WHERE ARE WE GOING?

Our goals in 2010 include using our Green Rating System to reduce the number of chemical products used onboard ships that could harm the environment and to systematically remove those chemicals that do not break down in the environment or can be harmful from our ships. We continue to monitor the chemical inventories onboard to identify efficient operating levels and reduce our stock of chemical products, eliminating unnecessary waste and saving storage space onboard. We are also working with chemical manufacturers to develop environmentally friendly coatings to extend the life of existing materials onboard our ships. This will allow for reduced maintenance and a lower volume of cleaning chemicals to be used.

The *Chemwatch* database will be enhanced to include text of the chemical-specific personal protection equipment (PPE), along with the already included pictographs. We will also implement a new training program on *Chemwatch* MSDS Hazard communication, to enhance our crewmembers’ understanding of the hazards associated with chemical handling and use.

These systems and efforts are ushering in a new era of enhanced communication and supervision of chemical management and further support RCL’s commitment to the safety of our guests, employees and the environment.





*Splendour of the Seas, Panama, Central America*



# CONSERVATION, DESTINATIONS AND EDUCATION



As the ocean is the heart of our business, conserving the oceans and the rich marine life they support is one of the foremost goals at RCL. In 1996, we established the Ocean Fund to provide a strategic focus for our marine conservation efforts. For the past 14 years, we have directed our conservation funding to marine science research, education and innovative technologies. In addition, the Ocean Fund supports nonprofit marine conservation organizations that work to maintain and restore marine habitats, seek ways to minimize human impacts and educate the public.

## CONSERVATION – WHAT ARE THE ISSUES AND WHAT ARE WE DOING ABOUT THEM?

The ocean and the diversity of life it supports are of great importance to Royal Caribbean Cruises Ltd.'s (RCL's) guests, staff and crew. The world's oceans generate 70 percent of the oxygen in the atmosphere, absorb carbon dioxide, provide food and recreation, replenish our fresh water and influence climate and weather patterns. Pristine ocean ecosystems are also the cornerstone of an enjoyable cruise. Our ships provide opportunities for guests to interact with these ecosystems through excursions to coral reefs teeming with vibrant aquatic life, beautiful sandy beaches and exotic destinations and coastal cities. Ensuring the places where we operate are properly cared for and protected not only makes good business sense, it is critical to the future of our planet.

Our oceans face a significant threat from climate change, a challenge that we see as the defining environmental issue of our time. Indeed, 2009 was designated "The Year of Climate Change" by the Secretary General of the United Nations. Observations and analysis of past and current trends reveal the warming of land areas and the ocean and major changes in patterns associated with weather events. In the past century, average global temperatures have increased 1.4 degrees Fahrenheit (0.8 degrees Celsius), a rate that, if unchecked, could cause a significant rise in sea levels, increase extreme weather fluctuations and cause coral bleaching. To help ensure the future of the world's oceans, RCL makes investments in conservation projects, sustainable destination management efforts and environmental education.

## THE OCEAN FUND

In 1996, we built upon our environmental commitment and launched the Ocean Fund, which supports marine conservation organizations in safeguarding the health of the world's oceans. The Ocean Fund's mission has three parts:

- Support efforts to restore and maintain a healthy marine environment;
- Minimize the impact of human activity on this environment; and
- Promote awareness of ocean and coastal issues and respect for marine life.

Grants are made to a variety of non-profit groups and institutions whose activities are directly related to marine conservation, including initiatives in research, education and innovative technologies. These organizations have undertaken a variety of projects that enhance our understanding of marine habitats, from training coastal managers on climate change adaptation strategies for marine protected areas across the Eastern Tropical Pacific Seascape, to an interactive traveling touch tank that provides elementary, middle and high school students the opportunity to experience hands-on ocean ecology learning. Since the fund's establishment in 1996, we have contributed almost \$11 million to 65 organizations around the world for projects that relate to ocean science, climate change, key marine species, education and innovative technologies. These organizations provide vital research on, restoration of and education about ocean ecosystems and the diverse aquatic life they support.

In 2009, the Ocean Fund awarded \$484,000 to 14 marine conservation and environmental organizations. Recipients included:

- **American Museum of Natural History:** \$39,000 to investigate population distribution of migratory sea turtles and establish DNA barcoding to catalog global biodiversity.
- **Conservation International:** \$40,000 for continued support of Seascapes – Climate and Biodiversity Initiative, which is developing regional strategies to address the impacts of climate change.
- **Coral Reef Alliance:** \$18,000 to finalize production of the Coral Friendly Explorers video series, which educates tourists on environmentally friendly underwater exploration.
- **Eco-Adapt:** \$40,000 in support of its climate change adaptation plan for Florida's reefs.
- **ECOCEAN:** \$30,000 to develop baseline understanding of whale sharks and good practices for sustainable ecotourism.
- **Grand Manan Whale and Seabird Research Station:** \$25,000 to identify seabird and basking shark habitats in the Bay of Fundy and continue the harbor porpoise release program.
- **Island Dolphin Care:** \$16,000 to purchase traveling marine life touch tanks for their marine ecosystem outreach education program serving elementary, middle and high schools in Miami-Dade and Monroe County.
- **The Nature Conservancy, Alaska:** \$40,000 for conservation and management of wild salmon habitat and the restoration of key coastal watersheds in Southeast Alaska.
- **Marine Conservation Society:** \$20,000 to bring the Cool Seas Roadshow marine life education program to primary schools in Southampton, Weybridge and Harwich, United Kingdom.
- **Massachusetts Maritime Academy:** \$25,000 for continued support of cooperative education stipends to train potential future maritime safety and environmental officers.
- **Shake-A-Leg Foundation Miami:** \$30,000 for continued support for the \$3.95-million eco-island project to provide educational, recreational and island restoration activities for students with disabilities and at-risk youth.

## POINT OF VIEW



### Shake-A-Leg Foundation Creating “Eco-Islands”

With the support of The Ocean Fund, Shake-A-Leg Miami has transformed two long-neglected spoil islands near Dinner Key into the “Eco-Islands” – ecologically rich locations for environmental exploration and experiential education. These islands, formerly covered by trash and debris, derelict boats and invasive plants, now feature educational signposts for self-guided tours, a wheelchair accessible nature trail, a wide variety of native plant species, shaded picnic areas, and a shoreline stabilization program.

*“The Eco-Islands are a destination location for the community and Shake-A-Leg Miami program participants alike. The project is an integral part of our educational programs serving youth with disabilities and those from low socioeconomic backgrounds. These islands serve as a living laboratory and, for some of our students, a visit to the Eco-Islands is their only chance to experience the natural environment and beauty of Biscayne Bay. Restoration projects, such as mangrove planting, invasive species removal and plant watering, are integrated into our curriculum and help instill environmental stewardship and conservation awareness among this underserved segment of our community.”*

– Jonas Rodennberry,  
Lead Program Manager,  
Shake-a-Leg Miami



## Climate Change Vulnerability Assessment of the Galápagos Islands

The unique oceanographic and biological conditions in the Galápagos Islands, where temperate and tropical species coexist, have resulted in incredibly diverse ecosystems, which are now threatened by human activities and climate change. Immediate and substantial adaptation measures are needed to reduce climate change impacts and increase the capacity of conservation and development efforts to adapt to climate change.

Climate change will also affect the well-being of the human communities in the Galápagos, as their livelihoods are primarily linked to tourism, fisheries and agriculture, all of which are dependent on vulnerable natural resources. To ensure the long-term survival of Galápagos biodiversity and the well-being of the islands' inhabitants, it is vital to gain a better understanding of this vulnerability, identify the most urgent actions to confront these challenges and implement measures for the adaptive management of coastal resources.

To this end, in 2009, a partnership among local and national governments, Conservation International, the World Wildlife Fund and others conducted a vulnerability assessment of the Galápagos marine and terrestrial biodiversity and the well-being of the human communities, in order to identify priority actions to address climate change. This initiative resulted in: an assessment of the potential impacts of climate change on the Galápagos Archipelago, predictions of expected response of species and ecosystems to those impacts, and a list of actions needed to increase the resilience and adaptive capacity of the biodiversity and the population of the Galápagos.



**CONSERVATION  
INTERNATIONAL**

- **TAMAR:** \$12,576 for sea turtle conservation, management and education in communities along the north coast of Brazil.
- **University of Miami Rosenstiel School of Marine & Atmospheric Science:** \$50,000 to revitalize and fully automate the *Explorer of the Seas* oceanographic research program and \$51,000 to continue the Royal Caribbean International and Celebrity Cruises Fellowship Program to support two incoming graduate students.
- **University of North Carolina, Wilmington:** \$35,000 to support the development of technology for the measurement and monitoring of ocean chemistry surrounding coral reefs.

These organizations and the projects they undertake enhance our understanding of marine habitats. Past projects have included migration pattern studies of the roseate spoonbill, loggerhead and leatherback turtles, and whale sharks; and programs designed to develop technology that will help us better understand our ocean. The Ocean Fund grant process is by invitation only. We actively review introduction emails from organizations throughout the year and seek the counsel of our strategic partners to develop the list of invitees for each grant cycle. Invitations to submit formal letters of interest are sent to selected organizations through April. (For more information about the Ocean Fund and our past grant recipients, please visit [www.royalcaribbean.com/ourCompany/environment/oceanFund.do](http://www.royalcaribbean.com/ourCompany/environment/oceanFund.do))

## CELEBRITY XPEDITION GALÁPAGOS FUND

At RCL we are working to ensure that the destinations we explore are protected for the future. *Celebrity Xpedition* supports sustainable tourism in the Galapagos Islands by promoting the consumption of local products, supporting technical training programs in the provinces and providing management support for the Galápagos National Park, as well as other organizations. Recently, Celebrity Cruises developed a partnership with San Francisco University of the Galápagos to create hotel and hospitality classes. These courses are designed to increase local capacity and self sufficiency in managing their tourism-based economy.

The *Celebrity Xpedition* Galápagos experience is planned in conjunction with the Galápagos National Park and follows strict environmental guidelines and regulations. Our naturalist guides are certified by the Galápagos National Park. We also established the *Celebrity Xpedition* Galápagos Fund, an onboard conservation program that gives guests an opportunity to participate in the ongoing conservation of the islands. Since 2004, the Galápagos Fund, together with the Ocean Fund, has provided approximately \$1,000,000 to non-profit organizations in the Galápagos Islands.

Our ship, *Celebrity Xpedition*, minimizes its impact on the unique biodiversity of the Galápagos Islands, to help ensure that there will be a place for both humans and wildlife in this special region in the future. During the voyage, the Galápagos naturalists provide insight into the wide array of natural wonders found throughout the islands. There are nightly lectures and briefings to prepare guests for the next day's discoveries. These sessions are recorded and broadcast on stateroom television for guests who are unable to attend the live briefings. The experience focuses on providing guests with personal enrichment and an understanding of the ecological conservation efforts needed to maintain the islands. *Celebrity Xpedition* also provides teachers and students the opportunity to sail on the ship and learn more about the unique marine environment of the islands.



In 2009, the Celebrity Cruises Galápagos Fund awarded \$350,000 to 15 organizations in support of projects that contribute to the Galápagos community. The Fund's projects focus on three main areas:

- **Preservation of species and habitats of the islands:** As part of an integral environmental protection program, *Celebrity Xpedition* is committed to protect and preserve environmental resources, avoid pollution and continuously improve environmental control. In order to do so, the ship maintains internal standards that are certified by the Smart Voyager sustainable tourism program.
- **Sustainable tourism supported by local communities and the local productive sector:** *Celebrity Xpedition* provides ongoing training and technical support to the artisan fishing and agricultural sectors in the Galápagos, designed to enhance production volume, and improve quality of product and the quality of the local production process. Through this support, the project aims to fulfill both local demand as well as the demand from the tourism industry.
- **Education and employment for students of the province:** *Celebrity Xpedition* supports education in the Galápagos by sponsoring local students and encouraging the creation of local jobs to meet the increasing demand for highly qualified professionals in the local hospitality industry. This initiative seeks to deter unnecessary migration of foreign persons to the islands and focus on developing the capacity of local residents.

## ENVIRONMENTAL AND INNOVATIVE SHIP OF THE YEAR AWARDS

Since 1999, we have held an annual internal awards competition for Environmental Ship of the Year and Innovative Ship of the Year. The Environmental and Innovative Ship of the Year awards honor our brands' most environmentally responsible and innovative onboard crew. The criteria for winning includes a thorough review of the ship's performance on internal and external audits, weekly and monthly reports, performance of equipment, reductions in environmental impacts, and *continuous improvement* efforts. The criteria and documentation for each ship are reviewed by a panel of independent experts in environmental management and conservation.

In 2009, Royal Caribbean International's *Liberty of the Seas* won both the Environmental Ship of the Year and Innovative Ship of the Year Awards for its excellent overall performance, with the most thorough and wide-ranging environmental programs in the entire fleet. The crew members demonstrated an exemplary level of commitment to saving energy, reducing waste and increasing their amount of recycled materials. There was a particular emphasis on learning and *continuous improvement* that included establishing a water and energy savings team, as well as educating staff on how freshwater is produced onboard and how wastewaters are treated.

For Celebrity Cruises and Azamara Club Cruises, *Celebrity Mercury* received top honors in the Environmental Ship of the Year Award category for its energy conservation, recycling efforts and reuse initiatives. *Celebrity Mercury* was given the award for its waste management efforts, especially in the face of a challenging itinerary. The ship's staff worked to establish recycling in numerous countries along its cruise track. *Celebrity Infinity* was awarded the Innovative Ship of the Year Award for effectively demonstrating how day-to-day operational changes can be coupled with smart onboard insight and engineering to produce an innovative approach to energy savings in cooling the ship. The ship was also noted for its continued strong efforts in recycling, management of waste streams, and the environmental honors received.

## Restoring Oyster Beds in Florida

RCL is partnering with The Nature Conservancy (TNC) to help restore oyster beds around the Indian River lagoon along the east coast of Florida. The partnership began nearly five years ago with *Mariner of the Seas*, and continues today with *Freedom of the Seas*. Two years ago, the Executive Committee onboard *Freedom of the Seas* allocated the ship's Environmental and Innovative Ship of the Year Award money to continue the oyster shell drilling and restoration work.

The partnership between *Freedom of the Seas* and TNC aims to restore approximately eight acres of oyster beds around the Indian River lagoon that were destroyed by years of neglect and boat traffic. TNC delivers bags of oyster shells to the ship, where the staff and crew onboard carefully drill a single hole into each shell. Then TNC volunteers connect the shells, creating large oyster shell mats. The mats are strategically placed in the Indian River lagoon to provide a stable surface for aquatic life to settle and grow, helping to reintroduce key species back to the lagoon.



Environmental Officer Barbara Ganzaroli at the oyster shell drilling station onboard *Freedom of the Seas*



## POINT OF VIEW

### Southeast Alaska Mapping Project

In Southeast Alaska, a watery web of islands and estuarine channels form an especially important link between the depths of the North Pacific and the rainforest's tumbling salmon streams. Here, kelp grows like an undersea forest and beds of eelgrass offer a nursery of the sea for the young of species such as salmon and rockfish. The forage fish that feed these great systems – herring and eulachon, capelin and sandlance – depend on beds of eelgrass for safe harbor during young stages in their development.

These estuarine waters also provide habitats for harbor eagles, sea otters, bears, whales, sea lions, and thousands of birds — all attractions for the region's growing tourism economy. The entire estuarine complex of Alaska's Alexander Archipelago measures about 12,000 square miles of water area and includes 1,000 islands, with 21,000 miles of shoreline. It's an estuarine complex without comparison. No other estuaries of the United States can compare: Puget Sound, for example, is less than a tenth its size.

Although the southeast estuaries remain healthy and have had relatively little development to date, threats still exist. The risk of oil spills and development along the shorelines – dredge and fill, upland development, and point and non-point sources of pollution – are looming pressures for these rich menageries of life.

The scientific community still has a lot to learn about estuaries, but The Nature Conservancy's estuary program is seeking to fill these gaps. In 2004, the Conservancy helped launch the Alaska ShoreZone inventory program in southeast Alaska, using a suite of high-tech tools to better understand the connection between the southeast uplands and estuaries. One result of this program, which RCL supports through the Ocean Fund, is that the Conservancy and its partners are creating maps documenting the biodiversity of estuaries and nearshore habitats in the region for the first time.

*"There's never really been a good inventory of what habitats are out there. To understand important needs of subsistence and commercial fisheries, we need to know where kelp, eelgrass and other species live and grow. And the ShoreZone habitat mapping being done by the Conservancy and partners can tell us this in great detail," says Laura Baker, who coordinates the program. "Once we understand where the most ecologically important areas are, we can help ensure they are protected."*



The winning ships receive an award they can display year-round, and select a non-profit organization to receive a cash donation on their behalf. The organizations selected by the Environmental Ships of the Year receive a \$10,000 donation, while those selected by the Innovative Ships of the Year receive \$5,000. In the event a single ship wins both awards they may elect to combine the donation and award a single organization the full \$15,000 or divide the total evenly between two recipients. Our Environmental and Innovative Ships of the Year have donated more than \$250,000 to charitable organizations since 1999. This past year contributions were made to the following conservation groups:

- **Southeast Alaska Conservation Council:** \$10,000 to protect Southeast Alaska's natural environment by developing a management framework for the sustainable use of the region's resources.
- **Blue Iguana Conservation Fund:** \$7,500 for the management and protection of the wild blue iguana population in Grand Cayman.
- **Trees for the Future:** \$7,500 to restore degraded lands to sustainable productivity by planting beneficial trees. This award will lead to the planting of more than 70,000 trees.
- **Pacific Wildlife Foundation:** \$5,000 to inspire conservation of coastal and marine ecosystems through scientific inquiry and education.

The shipboard teams work hard all year to compete and win the honor of selecting these organizations in the hopes that their spirit of innovation and environmental commitment will inspire others to achieve great things and give back to the communities where they live.

## STRATEGIC PARTNERSHIPS

In 2007, we began a partnership with Conservation International, a global conservation leader, to develop a comprehensive Environmental Stewardship Strategy. This helps us achieve more forward-looking and quantitative gains in our environmental practices. Four themes underlie that strategy:

- Reducing the impact of our operations on the environment, in real and measurable ways;
- Going *Above and Beyond Environmental Compliance*;
- Contributing to environmental programs and initiatives; and
- Raising awareness and calling for action by our guests, employees and business partners.

Similarly, in 2008, we began a partnership with Sustainable Travel International, a global leader in sustainable tourism development, to further refine our Environmental Stewardship Strategy, with a particular focus on responsible tourism, education and philanthropy. This helps us achieve quantitative gains with our charitable giving through the Ocean Fund and enhance our environmental communication and education through our Save The Waves® program.

## CONSERVATION – WHERE ARE WE GOING?

As we look forward, planning and decision-making for the Ocean Fund will be guided in large part by the advancement of marine science and conservation related to climate change, key marine species, technology and education. We will raise support for, and awareness of, the Ocean Fund and the critical work of its grant recipients.

The Ocean Fund will continue to support conservation and community development initiatives by extending invitations to reputable nonprofit organizations in every region where we operate by 2011. In an effort to expand the reach of our charitable giving, we are researching ways for our guests to participate in these efforts.

In addition, we are evaluating the benefits of incorporating social media in the reporting structure for our grant recipients, in an effort to promote the projects being funded and provide an additional portal for communicating the importance of ocean conservation. Our aim is to increase the public awareness of the Ocean Fund by launching a public awareness campaign in 2010/2011 throughout our fleet, with the long-term vision of reaching 80 percent of our guests, 100 percent of our crew and staff and 100 percent of key people at our destinations by 2015.

## DESTINATIONS – WHAT ARE THE ISSUES AND WHAT HAVE WE BEEN DOING ABOUT THEM?

Cruise destinations tend to be located in some of the most biologically rich, unique and sensitive places on earth. Our challenge is to provide exceptional guest experiences while managing our impacts on fragile ecosystems and communities. We also know that our activities can significantly add to local and global economies, as well as provide incentives for conservation and environmental stewardship. As a company, we have a duty to promote sustainability in these destinations, and we share these responsibilities with international and local governments, nongovernmental organizations, community groups (civil society), excursion providers, local businesses and communities.

There are many complex factors involved in helping maintain the natural and cultural integrity of the places we visit. Four targeted areas include:

- Developing management plans for sustainable growth;
- Promoting sustainability standards and verification mechanisms for excursion providers;
- Educating guests, staff and local communities about environmental and cultural issues; and
- Providing support for local conservation and community development.

In November 2009, Royal Caribbean International hosted a Destination Stewardship Think Tank on *Oasis of the Seas*, focused on defining how the travel and tourism industry can and should support destination stewardship and effectively change the way tourism is currently managed. Participants discussed a model of tourism development where local communities, governmental agencies, NGOs and the tourism industry would work together in maintaining the cultural, economic, environmental and aesthetic integrity of a destination through sustainable policy and management frameworks.

Our goal was to initiate a dialogue and bring together people who could move destination stewardship work forward and develop a direction for the future. As a result of this meeting, discussions with the Tourism Sustainability Council are underway to define long-term goals and form a working group. RCL will continue to participate in and support this work.



Alaska

## POINT OF VIEW



### Serenade of the Seas G.I.V.E. Program in St. Lucia

As part of Royal Caribbean International's Get Involved, Volunteer Everywhere (G.I.V.E.) program, the crew of *Serenade of the Seas* has supported the Holy Family Children's Home, an orphanage in St. Lucia, for many years. In 2009, the crew hosted a memorable Christmas visit for children and staff from the orphanage.

*"Our first call of the season was on December 23, just before Christmas and just in time to do something special for the children living at the orphanage. So, while the ship was docked in St. Lucia, we hosted more than 20 children and care givers onboard for the day."*

– Des Munro,  
Human Resources Manager,  
*Serenade of the Seas*



*Serenade of the Seas*

In 2009, the Ocean Fund provided a grant to the Coral Reef Alliance for the development of the Coral Friendly Explorer videos. As part of our comprehensive approach to destination stewardship, RCL plans to introduce these educational videos on our ships, to enhance guest awareness of good snorkeling and scuba practices prior to visiting their destinations.

## DESTINATIONS – WHERE ARE WE NOW?

Royal Caribbean Cruises Ltd. (RCL) has partnered with the Cruise Lines International Association (CLIA) in efforts to encourage the adoption of environmentally and socially responsible practices among providers of shore excursions. Through the Ocean Conservation and Tourism Alliance (OCTA), which is a partnership between CLIA and Conservation International (CI), RCL is working with CI to develop a set of criteria and indicators to help cruise lines identify responsible shore excursion providers. These *Criteria and Indicators for Sustainable Marine-based Tours* were developed in conjunction with key stakeholder groups to assist cruise lines in identifying whether suppliers are meeting operating standards for marine tours that provide quality and safety while supporting local communities and conserving the environment. OCTA developed and publicly vetted the criteria, which can be used by cruise lines as sustainable tourism standards.

In 2009, RCL, in conjunction with CLIA and Sustainable Travel International (STI), launched a pilot test of the *Criteria and Indicators for Sustainable Marine-based Tours* with marine tour operators in three locations: Cozumel, Mexico; St. Thomas, U.S. Virgin Islands; and St. Maarten. The goal of the pilot program was to help the cruise lines establish a current baseline level of performance for suppliers, in order to assess the need for improvements and the level of support that each provider might need to reach a certain minimum standard level of performance. As part of the pilot testing, STI delivered shoreside education and assessed a select group of our marine shore excursion providers. The pilot program looked at different areas of the excursion providers' operations, for example guest education related to snorkeling, and analyzed direct environmental impacts, as well as the social and cultural impacts of the business. The pilot sites underwent an on-site assessment of their business against the OCTA criteria and indicators, and STI helped the providers to build their sustainable business frameworks. STI is continuing to help CLIA and CI refine the OCTA criteria and indicators and the assessment process, and we will roll the program out over the next several years across our global marine shore excursion provider supply chain.

Integrating environmental criteria in selection and contracting procedures with shore excursion providers will enable us to respond to a growing demand by our guests for environmentally and socially responsible products and services. Suppliers will be offered incentives for good practices, and implementation of the criteria will be verified by a third party. This tool will help us work in partnership with our shore excursion providers to set and achieve the sustainability goals that are a key component of our environmental stewardship strategy.

## DESTINATIONS – WHERE ARE WE GOING?

We recognize the need to reduce our environmental footprint in the destinations we visit, and we are continuing to develop a road map for these reductions, with the OCTA *Criteria and Indicators for Sustainable Marine-based Tours*. We plan to integrate these criteria and indicators as a critical element of our 2011/2012 tour approval program and process.



The implementation of the OCTA criteria will be the focus of our efforts on destination stewardship in 2010/2011, and we will work hand-in-hand with suppliers on this effort. While all of our shore excursions are currently internally vetted, by 2015 more than half will also be third-party verified based on these criteria.

In 2010, we also will focus on working with STI and other leading practitioners on the development of *Criteria and Indicators for Sustainable Terrestrial Tours*, in order to assess our land-based excursion providers. Our goal by 2015 is to have third parties conduct regular assessments based on both the marine and terrestrial criteria, in partnership with the top destinations in which we operate.

## EDUCATION - WHAT ARE THE ISSUES AND WHAT HAVE WE BEEN DOING ABOUT THEM?

It is no small task to make sure our guests and crew understand the importance of complying with onboard policies and procedures related to managing chemicals and waste streams, water and energy conservation, safety, security, and medical/public health concerns. The complexity of this educational challenge is compounded because of the limited amount of time guests spend onboard—generally between three and seven days—and the fact that we must remember they are on vacation!

We provide training and education for our officers, staff and crew on a continuous basis, as our shipboard employees are in a perpetual state of rotation. All officers, staff and crew must complete specific training requirements mandated by international law and our company environmental policies and procedures. Our ports of call provide additional educational opportunities related to environmental and cultural issues.

In 1996, the position of Environmental Officer (EO) was created to provide enhanced oversight of shipboard environmental programs. This “three-stripe” position has evolved to include broad responsibilities for all significant environmental aspects of shipboard operations. EOs are responsible for training all crew members on their ships in the company’s policies and expectations, and the ways in which Save The Waves® affects each employee. All new and returning officers, staff and crew receive orientation and instruction concerning their responsibilities in the Save The Waves® program within 48 hours of joining a RCL ship. This training is mandatory and must be repeated with each contract. After every Save The Waves® training, each officer, staff and crew member must sign a pledge to uphold his/her responsibilities to protect the environment. This personal commitment ensures that everyone fully understands the importance of this program and will do his or her utmost to incorporate Save The Waves® into every aspect of onboard life. Additionally, each officer, staff and crew member is encouraged to take time to explain the concept and importance of Save The Waves® to our guests, and it is something that we believe is a source of significant pride throughout our corporate community.

Environmental Officers also provide educational programs and tours for guests, local schools and non-profit organizations in ports of call. They develop environmental lectures based on the itinerary, giving guests insights on the local area. In addition, lectures are offered regarding the company’s Save The Waves® program, waste management practices and Advanced Wastewater Purification systems. On *Celebrity Mercury*, which has one of the best recycling programs in our fleet, the EOs enrich the onboard guest experience through presentations on recycling. They share the knowledge they have gained, the measures taken to achieve such a high recycling rate and tips on ways for



### Azamara Journey’s Environmental Awareness Newsletter

Onboard *Azamara Journey*, guests receive the *Journey Journal*, a newsletter that highlights what they can do to reduce their environmental impact while onboard and at home. Tips featured in 2009 included:

- Using both sides of your paper reduces paper waste and energy used in paper production.
- Turning off the water when you brush your teeth saves water.
- Unplugging cell phone chargers when they are not in use saves energy.



## Celebrity Solstice Takes “Team Earth” Venue to Sea

Travel meets conservation at the Team Earth venue on *Celebrity Solstice*-class ships, where guests can raise their own eco-awareness while also learning how Celebrity’s ships operate, and how their advanced systems help conserve the environment.

Created in association with the environmental organization Conservation International (CI), Team Earth uses informal lectures, activities, video presentations, interactive computer programs, and photo exhibits to educate guests in fun, creative and entertaining ways and give them something they can take back into their daily lives.

“Environmentalism starts at home, but keeping a green mindset when traveling can also make a huge difference,” says Brooke Patterson, Celebrity’s Director of Product Development. “With Team Earth, we’re trying to show people that Celebrity is committed to environmental responsibility, and we also want to promote responsible tourism by increasing our guests’ sense of environmental stewardship.”

During lectures, guests learn about vital shipboard operations such as navigation, electricity generation, food sourcing, the creation of potable water, and recycling, as well as about technical innovations such as solar panels, advanced wastewater-purification systems, low-energy lighting, and advanced hull coatings that help lower our environmental impact. A lecture on the ship’s recycling program might be followed by a crafts session in which guests use some of that recycled material to make art. Another lecture might calculate the ship’s carbon footprint, then give guests the chance to calculate their own and learn how to lower it.

“Travelers help limit their impact on the environment,” says Patterson. “For instance, they can be extra-careful when snorkeling around coral reefs, which can be damaged just from a touch. It’s little things like that—little changes in the way you interact with the world—that can really make a difference.”

guests to reduce, reuse and recycle more efficiently at home. EOs onboard *Freedom of the Seas* offer briefings to guests on key environmental issues and how RCL is working to minimize its impact on the environment.

We actively support the efforts of our EOs and encourage each ship to develop partnerships with local organizations. Through this outreach, we hope to inform residents of port communities about environmental conservation, waste management practices, recycling, and the innovative technologies on our ships. For example, several of our ships have created partnerships with local schools and nonprofit organizations in their ports of call, to educate and inform residents about the importance of environmental conservation. The Environmental Officers facilitate environmental tours onboard the ships for groups of school children and service groups in several of our ports of call. During these tours, participants can learn about the numerous environmental processes that are conducted onboard, from garbage processing and recycling efforts to wastewater discharge.

## EDUCATION - WHERE ARE WE NOW?

We know it is not enough to have the best waste-management equipment and the highest standards of environmental protection to become responsible stewards of the marine environment. It takes dedicated, highly motivated experts to oversee and advise all officers, staff and crew about their roles in protecting the environment. Every year, the Environmental Stewardship Department hosts Environmental Officer training workshops. In 2009, two “Level II workshops” were facilitated at our Miami headquarters. Participants gained hands-on training on our management systems, Advanced Wastewater Purification equipment maintenance, and water-quality sampling. These bi-annual, one-week workshops provide opportunities for officers to meet and share good practices for managing the increasingly complex environmental equipment and tools onboard, and are a further demonstration of our commitment to *continuous improvement*.

In an effort to better understand our guests’ awareness, understanding and interest in our environmental programs we conducted a survey with guests that had sailed with one of our brands during the past two years. Through this preliminary survey we found that 49 percent of Azamara Club Cruises, 51 percent of Celebrity Cruises and 71 percent of Royal Caribbean International guests are aware of our Save The Waves® programs. In addition, 61 percent of Azamara Club Cruises, 68 percent of Celebrity Cruises and 79 percent of Royal Caribbean International guests believe the brands are doing well in regards to overall environmental friendliness. From this baseline we have a measure that will allow us to track the performance of enhancements to Save the Waves® onboard programming.

## EDUCATION - WHERE ARE WE GOING?

The Environmental Officer’s role has increased significantly in recent years, and we see that trend continuing as we broaden our conservation and education activities on our ships and in ports of call. Our ultimate goal is to significantly increase the public presence of Save The Waves®, and our environmental principles and programs. Our long-term vision for 2015 is to reach 80 percent of our guests, 100 percent of our crew and staff, and 100 percent of key people in our destinations.



*Celebrity Xpedition*, Galápagos Islands, Ecuador

# COMMUNITY INVOLVEMENT

## WHAT ARE THE ISSUES AND WHAT HAVE WE BEEN DOING ABOUT THEM?

Throughout our company's history, we have sought to be a good neighbor and community partner. Our corporate citizenship programs enhance our relationships with our communities, customers and employees, which in turn strengthens our company and benefits our shareholders. From our U.S. and international offices to wherever our ships sail worldwide, we help make local communities better places to live and work, by encouraging volunteerism, fulfilling the wishes of children, offering scholarships, and helping protect the world's oceans.

To become a neighbor of choice, we have sought to establish a legacy of trust, by:

- Building positive and sustainable relationships with key individuals, groups and organizations in communities around the world;
- Demonstrating sensitivity to community concerns and issues; and
- Designing and implementing community programs (philanthropy, volunteerism, partnerships, and in-kind donations) that improve the community's quality of life and promote the company's long-term business strategies and goals.

In keeping with our mission to enhance the well-being of our communities, our company offers funding and donations to nonprofit organizations with like-minded goals. Our corporate philosophy is to fund organizations that benefit and offer services to the entire community, and we focus support on three areas: 1) children and families, specifically foster-care programming, 2) educational programming, and 3) marine conservation, through our Ocean Fund.

Executive officers of RCL serve onboards of nonprofit organizations in local communities, with several executives serving on more than one. This gives our company the opportunity to extend its reach into the underserved areas of our communities.

*We will work to identify the areas of greatest need in our global communities, expand our sphere of influence, leverage partnerships and execute well-coordinated efforts with quality and confidence.*



## COMMUNITY INVOLVEMENT – WHERE ARE WE NOW?

We have a tiered approach to community involvement that includes volunteerism and support programs. Our volunteer programs include: G.I.V.E. Day; G.I.V.E. for the Holidays events; projects in Labadee, Haiti, and Overtown, Miami; the Make-A-Wish Foundation's Wishes at Sea, Destination Joy and Walk for Wishes programs; and Board placement. We also provide support for hurricane relief and personal crisis aid with the RCL Crew/Employee relief fund. Through our focus on children, education and foster care programming, we participate in mentor programs, and sponsor the Fain Scholarship program.

Our company has a long-standing partnership with United Way. Each of our North American offices runs an annual employee giving campaign that helps to create lasting, positive change in the lives of children, teens, families and seniors in the various communities in which we do business. With our corporate headquarters located in Miami, the largest of these campaigns takes place in partnership with United Way of Miami-Dade. In addition, several of our executives hold volunteer leadership roles with United Way, extending the impact that our company is making in the community.

### G.I.V.E. PROGRAM

RCL's Get Involved, Volunteer Everywhere (G.I.V.E.) program was launched in 1997. Every spring, on G.I.V.E. Day, employees and their friends and families, vendors and business partners, join forces nationally and internationally to assist nonprofit and community organizations in improving the quality of life in their communities. Our employees have pitched in at schools, children's homes, museums and neighborhoods in the United States, the Caribbean and Europe. We've expanded this program to include "G.I.V.E. for the Holidays," through which shipboard employees raise money for destination-based charities of their choice, including orphanages, shelters and community centers around the globe.

On G.I.V.E. Day 2009, approximately 1,000 employees participated in volunteer projects around the world. In south Florida, employees worked with Seafarers' House, a broad-based coalition comprised of Christian, Jewish and Muslim clergy, and labor, business and civic leaders committed to improving the lives of seafarers (those who work on ships) and their families. Seafarers' House opened its doors at Port Everglades, Florida, in 1989 with four phones in a 400 sq. ft. hospitality center. Today, their 4,200 sq. ft. facility hosts more than 100,000 crew visits each year, more than any other agency in North America. Each holiday, through their shoebox drive, the organization gathers about 3,000 shoeboxes filled with socks, toiletries and holiday cheer to give to seafarers who come from all over the world to Port Everglades. As part of G.I.V.E. Day, our employees filled 1,000 boxes with shampoo, shaving kits, socks, phone cards and more, and then teams of volunteers from our ships delivered the holiday shoeboxes to crewmembers who could not leave the ships while in port.

### MAKE-A-WISH FOUNDATION® PARTNERSHIP

Through a partnership with the Make-A-Wish Foundation®, we help make wishes come true for children facing life-threatening illnesses. Since 2000, our Wishes at Sea cruise donation program has hosted more than 1,300 wish kids and their families around the world, contributing more than \$2.8 million in in-kind services and \$372,000 in discount savings. Through employee and guest fundraising efforts, such as Walk for Wishes, we



G.I.V.E. Program



Make-A-Wish Foundation®



## Steve Redgrave Fund

In 2009, RCL adopted the Steve Redgrave Fund (SRF) as an official charity for the next two years, with a goal of using the power of sports to bring about positive change in the lives of disadvantaged young people and their communities. SRF supports community groups, small charities and schools in areas of economic or social deprivation, who use sporting activities to promote physical and emotional well-being, community cohesion, education, and inclusion of people who are facing difficulties in their lives. The charity has touched the lives of thousands of young people in the UK over the past seven years. Through programs in our UK office, as well as events onboard *Independence of the Seas* when the ship is home porting in the UK, we have raised awareness and thousands of pounds sterling for the organization.

also raised more than \$500,000 and collected 460,000 donated frequent flier miles for the program in 2009. We also have executive officers serving on local chapter boards of the foundation in cities where we have corporate offices. (To learn more about Make-A-Wish Foundation®, please visit [www.wish.org](http://www.wish.org))

In June 2009, we hosted ten Make-A-Wish families on *Liberty of the Seas* for a 7-night Caribbean cruise. The day before the cruise, RCL employees and executives honored the families with a spirited Bon Voyage party, complete with children's activities and a company-wide bingo competition. The next morning, the celebration continued with more than 500 people at our Family Day on the Deck event onboard the ship. For many of the families, it was the first time in a long time they had been able to relax and spend time together without running to doctor's appointments or treatments. The children spent a carefree week, relishing in the fun of the FlowRider and rock wall, and spending much of the day with the amazing Adventure Ocean staff and their action-packed itinerary created especially for them. For the parents, the trip provided an opportunity to meet and spend time with other families who are dealing with some of the same frustrations and difficulties.

In November 2009, when Royal Caribbean International officially launched and named *Oasis of the Seas*, the world's largest cruise ship, we did more than make wishes come true for eager vacationers—we also made more wishes come true for Make-A-Wish® children across the country. RCL donated 1,000 staterooms on the special one-night inaugural and naming cruise to the Make-A-Wish Foundation® as a fundraiser. Highlights of the magical evening included the official christening and naming ceremony, as well as festivities hosted by the ship's celebrity godmothers.

## FOCUS ON EDUCATION AND MENTORING

Our strong belief in education and mentoring programs runs throughout the company, and we are proud that our employees participate in the Miami BIGS in School, School to Work, Communities In School and KAPOW programs.



City Year Miami

We are continuing our partnership with City Year Miami at Dunbar Elementary in Miami's Overtown neighborhood. As tutors and mentors, our City Year Miami corps members provide critically needed services to some of Miami-Dade County's most underserved children and youth through after-school programming and civic engagement. In 2009, 89 RCL employees participated in the program, which has reached 1,900 children. RCL sponsors City Year Miami because it fits with our goal of promoting children's and family educational programming, and it serves the communities where our employees live and work. The return from our investment in City Year Miami is exponential; it increases employee morale and has a direct connection to positive change in the community. (To learn more about City Year Miami, please visit [www.cityyear.org/miami.aspx](http://www.cityyear.org/miami.aspx))

Employees also help children reach their potential through professionally supported mentoring in the Big Brothers Big Sisters, BIGs in School, and School to Work programs. BIGs in School provides employees a chance to work with a child one hour each week at an elementary school near their home or office. The School to Work program offers opportunities to work with high school students at the employee's worksite four hours per month during the school year. During these worksite visits students spend time in workshops on topics from business etiquette to interview skills.

They also learn about our company's various departments, spend one-on-one time with their mentors and take turns shadowing our Food and Beverage teams in the test kitchen to learn how to cook and present a meal. The overall goal of the program is to expose the students to valuable skills and a variety of career possibilities. (To learn more about Big Brothers Big Sisters, please visit [www.wementor.org](http://www.wementor.org))

Since 1997, employees from our South Florida offices have also participated in Kids and the Power of Work (KAPOW). Founded in 1991 by Grand Metropolitan and the National Child Labor committee, KAPOW is a national network of business and elementary school partnerships that aims to raise awareness of career opportunities through professionally developed lessons taught in the classroom by volunteers. KAPOW allows our employees to visit schools and help students realize the benefit of education for their future by understanding the connection between their class work and the working world. (To learn more about KAPOW, please visit [www.kapow.org](http://www.kapow.org))

### PAN-AMERICAN DEVELOPMENT FOUNDATION PARTNERSHIP

Through an alliance with the Pan-American Development Foundation (PADF), we have been able to broaden the reach of our community partnerships and assistance to include disadvantaged people and communities in Latin America and the Caribbean. PADF empowers these communities to achieve sustainable economic and social progress, strengthen their communities and society, and prepare for and respond to natural disasters and other humanitarian crises, all of which advances the principles of the Organization of American States. In 2009, PADF's programs reached more than 5.6 million people in 18 countries. Our partnership with the Foundation maximizes our reach to many impoverished neighborhoods and allows us to leverage resources to create a greater impact for communities with the greatest needs. Our crew members volunteer with the Foundation's many partners throughout Latin America and the Caribbean. (To learn more about the Pan American Development Foundation, please visit [www.padf.org](http://www.padf.org))

In Brazil, RCL is working with PADF to fund the conservation and monitoring of the Red-tailed Amazon parrot and its habitat on Rasa, Gamelas and Grande islands, off the northern coast of the state of Paraná. To implement this program, PADF is partnering with a local organization, *Sociedade de Pesquisa em Vida Selvagem e Educação Ambiental*, to protect the endangered species through scientific research, social awareness and supervision of the early development of the young birds from the egg to their first flight.

For several years, we have partnered in Haiti on community-driven development projects that strengthen community organizations, help them implement and manage their own social services and small infrastructure activities, and build grassroots democracy by establishing community committees that prioritize and manage local projects. Our partnership has provided grants to more than 360 organizations in some of Haiti's poorest areas.

### HEROES OF THE HEMISPHERE

In 2009, we hosted a Heroes of the Hemisphere event on *Liberty of the Seas* to celebrate the achievements of five extraordinary people and raise awareness about the work of the PADF. Hosted by Royal Caribbean International, this was the first major Miami event organized by the 48-year-old nonprofit organization.



Kids and the Power of Work (KAPOW)





PADF's 2009 Heroes of the Hemisphere honorees were: Yoani Sánchez of Havana, Cuba; Nicole Muller César of Tabarre, Haiti; Andrea González of Bogotá, Colombia; José Silvestre Sánchez of Cáceres, Colombia; and Juan Ayala of Santa Marta, El Salvador.

"We're honoring these five unique people because they took the initiative to create a better world for the least fortunate around them. None of them set out to be a hero, but through their efforts, they lifted up the hopes, dreams and realities of so many people. They have made a mark on humanity," said Phillipe Armand, First Vice President of PADF's Board of Trustees, when introducing the award winners.

PADF was honored to have the support of the internationally acclaimed contemporary artist Romero Britto for the event. Always the artistic innovator, Romero Britto used his brilliant, colorful style to create the Heroes of the Hemisphere signature logo of a thumbprint and its tagline "Make Your Mark on Humanity." While Britto's canvas was on display, a group of VIPs placed their own fingerprint on it to symbolize their personal "Mark on Humanity."

## SOLANO FOUNDATION



Solano Foundation

In 2006, RCL created the Solano Foundation, a nonprofit organization that helps to coordinate and expand existing and new social, environmental and community development activities in the area surrounding Labadee, RCL's private destination on the north coast of Haiti. We continue to contribute funding and in-kind support to the Foundation's projects, which in 2009 included school repair, village cleaning, distribution of medicine, road maintenance and an annual community festival. The major project supported by the Foundation in 2009 was a water project in Labadee Village, the closest community to our destination. Jointly financed with the U.S. Agency for International Development and FOKAL, a local organization, the \$350,000 project included an educational component to help local people understand the value of water as a common good, as well as a technical component that developed reservoirs and a distribution system of pipes throughout the village.

## COMMUNITY INVOLVEMENT – WHERE ARE WE GOING?

Given the world's economic situation, it is more important than ever for us to focus our community giving and outreach where the impact will be most meaningful. We will work to identify the areas of greatest need in our global communities, expand our sphere of influence, leverage partnerships and execute well-coordinated efforts with quality and confidence. Then we can celebrate our successes with neighbors, guests, crew, staff and friends.









# SAFETY AND SECURITY





As the Vice President of Global Security and Maritime Safety, I am excited to present the first full Safety and Security chapters to be included in our *2009 Stewardship Report*.

While I just recently joined the Royal Caribbean Cruises Ltd. team, I have dedicated my entire professional career to safety and security programs which safeguard guests, crew members and ships operating in the marine environment. Having served for 30 years in the U.S. Coast Guard, and then for four years with a global commercial shipping company, I have always been responsible for developing and implementing enhanced measures to effect positive change for safety and security. I am thrilled to now be part of an energetic and motivated team, and to put to use my career experience to positively impact the quality of vacations for our guests on RCL ships.

The detailed Safety and Security portions of the *2009 Stewardship Report* are appearing for the first time. We are extremely proud to be able to advise you of what we have been working on to improve our programs in these areas. As you will learn in these sections, we don't just strive to meet the regulatory minimums for operational compliance in safety and security, we go beyond. In many areas, we have worked with Flag states and regulatory agencies to create innovative approaches and procedures that enhance our goals. One example, the Safety Command Center concept on *Oasis of the Seas*, is revolutionary. The concept advances the bridge team officers' awareness of all onboard situations and improves their ability to effectively respond.

While we have achieved much, there is always more to do, and more to improve upon. The journey to enhance safety and security is never complete. I assume my responsibilities at RCL with great pride and high energy. I hope you are impressed with what you are about to read in Safety and Security, and going forward, I promise to work diligently to keep our ships safe and secure.

Lawrence J. Bowling  
 Vice President, Global Security and Maritime Safety  
 Royal Caribbean Cruises Ltd.





### Classification Societies

A classification society is a non-governmental organization that acts on behalf of flag states to guide and monitor compliance with many international maritime standards and regulations, including specific safety and security requirements. The society's areas of focus begin during ship construction and continue with routine in-service inspections throughout the operating life of a ship. Classification societies issue certifications of compliance that are required for the vessel to continue to operate.

The safety and security of our guests, crew and shoreside employees is one of our highest priorities. At Royal Caribbean Cruises Ltd. (RCL), our approach to safety and security includes implementing measures that help prevent incidents from occurring, and being prepared to effectively respond if an incident does occur.

Safety and security is everyone's responsibility. Through careful attention by RCL, governments and guests and crew alike, risky situations can often be avoided. However, occasionally, despite the best intentions of everyone involved, a safety or security incident may occur. In such cases, we are prepared to respond in a timely, effective and caring manner, to minimize adverse impact and to understand and learn from the incident so that we can implement procedures to help prevent future incidents.

Within RCL, safety and security is managed by a dedicated vice president-level officer, who develops policy and oversees its execution throughout the fleet and is supported by a team of area experts with extensive technical training and experience. As a group, they are experts in their field, and as individuals, they routinely provide issue-specific support and leadership within the cruise industry. Our safety and security team is composed of highly motivated professionals committed to advancing the needs of the guests and crew who sail on our ships.

Although some aspects of safety and security are sensitive, the following sections provide information about RCL's initiatives and procedures in this area and answer questions that our guests may have.

## WHAT ARE SOME OF THE STANDARDS THAT GUIDE RCL'S SAFETY AND SECURITY PROGRAMS?

There are many important, internationally recognized standards that guide the cruise industry's safety and security efforts. In general, the maritime regulatory environment is complicated. Commercial ships (including cruise ships) are flagged (or legally affiliated) with a particular nation, which makes each ship then subject to the regulatory control requirements of its "flag state," regardless of where it operates in the world. This is true whether a ship is located in international waters (beyond the boundaries of any nation or state) or is within a nation's territory (when transiting, approaching or calling at a port). RCL ships are currently registered and operate under the flags of either Malta, the Bahamas or Ecuador.

In addition to worldwide flag state control, commercial ships are governed through the application of international regulations established by the United Nations' International Maritime Organization (IMO). As applied by flag states and nations around the world, and enforced by "classification societies" (see sidebar), these regulations help standardize the maritime regulatory environment.

When a ship is located in the waters of an individual nation, it is also subject to the laws and regulations of that nation. This adds another layer of control on the activities of the ship and its guests and crew. Different laws may therefore apply as a ship passes from one nation's territorial waters to international waters and then on to another nation's territorial waters. Some nations, most notably the United States, have even passed laws that provide "extra-territorial jurisdiction," which extends their ability to enforce laws to international and even in some situations to foreign national waters. Due to the international nature of our business, during any single cruise, safety and security regulations are governed by a complex combination of flag state, national, extraterritorial and international laws and regulations, including the following:



*IMO delegates representing member nations gather from around the world*



- **The International Code for the Safe Management of Ships (ISM)** provides an international standard for the safe management and operation of ships, the establishment of safeguards against all identified risks, and pollution prevention. The ISM requires a safety management system to be established by “the Company” (defined as the ship owner or operator) that must include a safety and environmental protection policy, defined levels of authority and lines of communication between and among shore and shipboard personnel, procedures for reporting accidents, procedures for responding to emergencies, and procedures for internal audits and management review. The Company must also establish and implement a policy for achieving these objectives.
- **The International Convention for the Safety of Life at Sea (SOLAS)** is generally regarded as the most important of all international treaties concerning the safety of merchant ships. It has been amended and updated a number of times since its first version was adopted in 1914, in response to the Titanic disaster. The 4th version, adopted in 1960, was the first major task for the International Maritime Organization after the Organization's creation. The SOLAS convention is periodically amended to ensure the highest level of safety. Its provisions include (but are not limited to): construction (stability, machinery and electrical installations); fire protection, detection and extinction; life-saving appliances and arrangements; radio communications; navigation; and management for the safe operation of ships.
- **The International Ship and Port Facility Security (ISPS) Code** is a 2004 amendment to the Safety of Life at Seas (SOLAS) Convention (1974/1988). The ISPS Code, which was developed in the wake of the September 11, 2001, terrorist attacks in the United States, established internationally approved acceptable security standards for ships, ports and government agencies around the world. It requires governments, shipping companies, shipboard personnel, and port and facility personnel to detect security threats and take preventative measures against security incidents affecting ships or port facilities used in international trade. It requires measures such as ship security plans, ship security officers, company security officers, certain onboard equipment, port facility security plans, port facility security officers, certain port security equipment, monitoring access, controlling the activities of people and cargo, and ensuring security communications are readily available. The ISPS Code has been adopted by 148 states (nations), including RCL's flag states and the United States. Therefore, the ISPS Code applies to RCL and each of our ships.
- **Port Security within the United States**, as it relates to ISPS Code requirements, is mandated by the Maritime Transportation Security Act of 2002 (MTSA). The MTSA requires vessels and port facilities to conduct vulnerability assessments and develop security plans that may include passenger, vehicle and baggage screening procedures; security patrols; establishment of restricted areas; personnel identification procedures; access control measures; and/or installation of surveillance equipment. The MTSA created a consistent security program for the protection of all the nation's ports and vessels to better identify and deter security risks. In accordance with the MTSA, these requirements are to be enforced by the United States Coast Guard “through observation, asking questions, and reviewing security records.” The Coast Guard is empowered to impose “appropriate control and/or enforcement actions,” which include “inspection, delay, or detention of the ship; restriction of ship operation; expulsion of the ship from port; and/or lesser administrative or corrective measures.”
- **Manifest screening** has been a part of RCL security procedures since the early 1990s, when we began complying with United States Government guest/crew



#### International Standards

The International Ship and Port Facility Security (ISPS) Code is an amendment to the SOLAS Convention and addresses security arrangements for ships, ports and government agencies.



#### Ship Security Officers

At each port of call, the ship security officer serves as the liaison between the ship and the port facility security officer. Together, they coordinate all security arrangements for the day and ensure a smooth and secure transition for visitors and guests from the ship via the port to the destination.



The *Cruise Vessel Security and Safety Act* is a bill under consideration in the U.S. Senate. Having been introduced and passed in the House of Representatives, it is now awaiting passage in the U.S. Senate. This bill, which is supported by the cruise industry, was introduced in response to crime and missing persons concerns voiced by cruise victims. The bill has merit and it is hoped it will be passed in 2010, before the end of this Congressional Session.

screening programs through the government's Advance Passenger Information System (APIS). Since 2005, we have used the APIS's successor program, the electronic Notice of Arrival and Departure (eNOAD). Under these programs, RCL routinely submits, for government screening, guest manifests and crew lists for ships departing from or arriving in the United States. RCL participates in similar programs when its ships call on other nations that have government screening programs.

- **Unlawful act and safety incident government reporting** requirements include, for example, flag state regulations to report alleged illegal activity and certain safety incidents regardless of where in the world the activity may occur. Corporate policy and some port state laws also require mandatory reporting of alleged illegal activity in the ship's next port-of-call. The United States, for example, requires alleged shipboard criminal activity to be reported to federal law enforcement authorities (USCG and FBI) in writing when it occurs on a ship traveling to or from a port in the United States (guidance was subsequently issued that results in notification by telephone in situations where a serious crime is alleged). The same federal laws impose strict penalties for non-compliance, including (among others) civil penalties of up to \$32,500 for each violation (each day of a continuing violation is treated as separate), criminal liability for willful and knowing violations, denial of entry into the United States, and expulsion of the ship from the United States (33 U.S.C. § 1232).

Corporate Policy requires compliance, as a company, RCL is committed to reporting all alleged illegal activity to law enforcement. In 1999, RCL and other cruise companies embraced a "Cruise Industry Zero Tolerance Policy for Crimes Committed Onboard Ships," which established an industry standard that all allegations of onboard crime be reported to the appropriate law enforcement authorities. For vessels calling on United States ports or crimes involving United States citizens, this reporting includes the FBI. According to this policy, if crimes do occur, the appropriate law enforcement authorities will be notified so they can investigate and prosecute to the fullest extent of the law. RCL reports alleged crimes to flag state officials, the FBI (where required or indicated), and to the law enforcement authorities at the next port-of-call. RCL fully cooperates with the authorities to ensure that perpetrators of crime can be brought to justice.

Our corporate safety and security policy has been developed to guide and assure compliance with the safety and security regulations that govern our ships around the world. RCL's *Safety, Quality and Environmental Management System* (SQM) houses policies and procedures that keep us in compliance with not only the regulatory requirements of ISM and ISPS Codes, but also with our voluntary certifications under the International Organization for Standardization (ISO). Shipboard personnel are consistently trained and continuously audited to help ensure compliance and to identify areas for improvement. These audits include external audits by classification societies, as well as audits by our internal auditing departments. We have also fully implemented the designated person ashore (DPA) staff position, required by ISM, responsible for ensuring that crew members onboard have a point of contact through which to pass concerns to senior management without concern for repercussion. The company's management system is the backbone of our operation and provides the policies and guidance that govern both our strategic planning, as well as our day-to-day operations. By self-critical analysis, *continuous improvements* to our procedures and operations are identified and implemented.

## HOW DOES RCL IMPLEMENT SECURITY MEASURES ONBOARD ITS SHIPS?

Although security procedures are sensitive by nature, there are several general aspects of shipboard security that can be publicly discussed.

RCL ships are staffed with a dedicated onboard security team that sails with the ship at all times. The team reports directly to the Staff Captain, who is the second in command of the ship, and day-to-day security activities are led by a Security Officer. The Security Officer is supported by one or more Deputy Security Officers and Supervisors who direct the activities of a team of guards.

Our onboard security personnel come from a variety of backgrounds, including the military, law enforcement and other governmental or private security sectors. Security team members are selected after evaluation of their background and skills, and each is personally interviewed by an RCL security professional prior to being hired. Security personnel must be fully familiar with the requirements of the International Ship and Port Facility Security (ISPS) Code and receive specialized training from governmental agency representatives. This training includes security awareness, dispute resolution, crowd control management, access control operation, x-ray screening, physical search techniques, drug and alcohol awareness and detection, incident response and explosive/illegal drug recognition and detection.

The ship's security team is responsible for providing security according to company policy and procedures that have been developed by a shoreside team of security professionals. Their security responsibilities fall into two general categories, access security and guest security:

- **Access security** refers to the process of effectively screening everything and everyone that comes into the area of the ship. This is carried out according to the Ship Security Plan, which is individually customized for each ship. It is also accomplished in close partnership with local shoreside security experts, whose activities provide additional layers of security for our guests, crew and ship. For example, guests, crew, provisions and ship stores are screened utilizing equipment such as x-rays, magnetometers, and explosive and drug detection devices. Access security tools also include use of an automated process for determining who is onboard and who has left the ship, and other technology, such as a closed-circuit television system. There are additional screening tools and processes that help prevent incidents, although they are not visible to observers. We do not discuss these processes and tools publicly, because doing so would undermine their effectiveness.
- **Guest security** refers to the process of helping guests enjoy their time onboard without incident. One of the most enjoyable aspects of a cruise is the wide variety of nationalities and backgrounds of those onboard. To ensure that everyone has a shared understanding of acceptable behavior, RCL has developed a Guest Conduct Policy. Those who do not comply with this largely intuitive policy may be subject to disciplinary measures that range up to being debarked from the ship and even having their future sailing privileges revoked. In an extreme situation, if someone is alleged to have violated the law, RCL will report that activity to the proper law enforcement agency and take steps to fully understand the incident and support governmental response and investigation.



**Shipboard Access Security**

In certain ports, RCL and the local port authority have established a security screening facility close to where the ship is docked.



**K-9 Dog Screening**

Security screening includes K-9 (dogs) assets, which are capable of screening small and large baggage, humans as well as stores and provisions. K-9s are used extensively at ports of call.



**Onboard Guest Security**

Guest security personnel are part of a ship's security team and are dedicated to deter and respond to incidents.





### Thermal Imaging

RCL has been testing thermal imaging cameras onboard several ships to evaluate their most effective positioning for specific low-light applications. Cruise-specific software solutions are an important part of such a capability, however they have yet to be proven sufficiently reliable.



### A-PASS

The A-Pass access control system helps verify guest and crew access authority.



### Onboard CCTV

CCTV is one of the tools that helps ensure guests and crew are safe and secure.

## HOW IS TECHNOLOGY USED TO AID ONBOARD SECURITY?

Combining proven practices and highly trained personnel with effective use of technology greatly enhances onboard security. We use a variety of different technologies on RCL cruise ships, from familiar tools such as X-ray machines, radios and drug and explosives detectors, to others that may be less commonly known. The following are some of the additional technologies we employ to help ensure onboard security:

### WATCH LIST PROCESS

Almost everyone who has traveled by commercial airline within the past several years is familiar with the U.S. Government's "No Fly List." However many people may not know that RCL employs a similar list for those it determines are not welcome as cruise guests. RCL's "Watch List" is a compilation of named persons who, for a variety of reasons, may not be welcome onboard an RCL ship. While the list contains government-provided names of people whom government authorities have decided may not sail without review, it also contains the names of persons who have behaved in an unacceptable manner on a previous cruise voyage. This behavior might include interfering with the vacation experience of other guests, being alleged to have committed a crime, or committing a serious violation of the Guest Conduct Policy. In such situations, the circumstances will be evaluated and a decision made as to whether to welcome the former guest on a future voyage. The Watch List is an important tool to help prevent sailing by guests who abuse their cruise privileges and adversely impact on the cruise experience of others.

### A-PASS

The Automated Personnel Assisted Security Screening (A-PASS) system was developed to comply with United Nations International Maritime Organization requirements (SOLAS) for guest accountability. The system assigns each individual (guest and crew) on the ship an electronic identity card for the duration of their time onboard, which helps in preventing unauthorized boarding of our ships. The A-PASS system is directly linked to onboard databases and, by reading each unique identity card, can account for and record the movement of all personnel on and off the ship. It also helps support age verification (i.e. in discos and bars).

### CCTV

RCL ships make extensive use of high-quality closed-circuit television systems (CCTV) in public areas. The system, which is managed by the security team, provides a targeted deterrent system that also aids in resolving security incidents. Image quality has been greatly enhanced in recent years, and the system's digital format permits electronic transmission and storage of videos. A new feature, which involves the linking of cameras with the shipboard fire suppression system, can allow safety teams to immediately see an area where a fire alarm sounds.

### SHIP VISITORS

Since shortly after September 11, 2001, RCL only allows visitors onboard for business purposes. This policy is enforced for security reasons, whether the ship is calling at a port in the middle of its cruise or "turning around" at the end of its cruise. It is also a matter of necessity. "Turnaround" day is very busy, as the ship says good-bye to guests from one cruise and greets guests for its next sailing. Each personboarding under such circumstances must receive specific prior approval and clearance, which is issued

by and tracked in a special system. Once approved, each person boarding an RCL ship must undergo the same level of security screening as a sailing guest, regardless of their reason for being onboard. This process ensures that the overall cruise ship environment can be maintained in a safe and secure manner.

## HOW DOES RCL DETECT AND RESPOND IF A FIRE OCCURS ONBOARD?

All of our vessels are equipped with advanced fire detection and suppression systems; however, fire safety begins with prevention. All ships are constructed and outfitted to comply with stringent international fire safety regulations, including requirements for fire integrity of bulkheads (walls), windows and fixtures onboard, such as furniture and carpets. Our ships are inspected throughout all stages of construction by third-party safety inspectors from recognized classification societies and flag state safety agencies, like the U.S. Coast Guard.

There are thousands of smoke or heat detectors onboard to quickly detect a potential fire. Onboard safety systems are linked to this detection system, including the fire doors and shutters that automatically close when two or more detectors are activated. As an additional level of precaution, the general emergency alarm will automatically sound if a detector alarm is not quickly resolved. These detectors are very sensitive, and occasionally alarm, sending a notice to the bridge of the presence of either smoke or elevated heat. Most of these are false alarms, such as steam from hot showers in staterooms.

Even though fire risk is minimal, fire suppression systems are installed throughout all areas of the vessel. The primary fire suppression system on most ships is a water mist system. Converting water into a mist allows more surface area for smoke and heat to be absorbed, making the system much more effective. Water mist systems are also safe for people who may be near them when they are activated. In areas such as engine spaces and galleys, we have installed water mist and CO<sub>2</sub> systems. In addition, we have gone *Above and Beyond Compliance* regulations by installing wet chemical extinguishers in all of our galleys. These are kitchen-type extinguishers that are especially effective in the case of a deep-fat fryer fire.

If a detector indicates there may be a fire onboard, response personnel are immediately dispatched to the area to evaluate the situation. If indicated, additional mobile fire groups respond, outfitted with full firefighter gear, breathing apparatus and special heat-seeking systems that use thermal imaging cameras. These cameras (both handheld and helmet mounted) help to identify the source of a fire and to locate any people who may be in the affected area. Responding crew also have access to an Impulse Fire Extinguisher (IFEX), which shoots a blast of water using pressurized air, and is ideal for rapid response in quickly suppressing a fire. With these tools, our highly trained personnel on the bridge and on-scene can manage fire-related situations quite well.

## ARE NEW SHIPS BUILT TO THE SAME STRONG SAFETY STANDARDS AS THEIR PREDECESSORS?

The design and construction standards for cruise ships are established by the IMO. These requirements are constantly updated to ensure that operational, environmental and safety standards benefit from new advancements. Examples of new standards include:



### Emergency Preparedness

Crew members are trained and drill on a regular basis to effectively respond in the event of an onboard emergency



*Oasis of the Seas under construction in Turku, Finland.*

## POINT OF VIEW

### Maritime Advisory Board

Our Maritime Advisory Board, which convened for the first time in 2006, includes Tom Allan, former head of the UK Maritime and Coastguard Agency and Chairman of the Maritime Safety Committee at IMO; Vice Admiral James Card, former head of the U.S. Coast Guard's Marine Safety Program; Tor Svensen, Chief Operating Officer at Det Norske Veritas (DNV); and Dr. Dracos Vasselos, professor at Strathclyde University. Their leadership and experience are a tremendous asset to us.

*"From our very first Maritime Advisory Board meeting, it was evident that RCL was not only prepared to listen to the views of the Board, but committed to implement those views. I firmly believe that the functioning of the MAB demonstrates RCL's commitment to safety and innovation. It demonstrates a strong compliance culture with extensive third-party review and a particular focus to work transparently and closely with all maritime safety authorities."*

– Tom Allen

- **“Safe Return to Port”** is an IMO concept that requires passenger ships to be built to standards which help ensure that, even if big problems develop, the ship is able to return to port under its own power and with guest and crew comfort systems functioning. This design concept emphasizes redundancies in critical onboard systems that can sustain water production, air conditioning, propulsion and other key systems. By placing such equipment in separately protected shipboard compartments, the chances are that even if one entire compartment experiences a problem, backup systems in other compartments will not be affected and can automatically take over key functions.
- **Probabilistic Damage Stability Rules**, which are based on years of research and experience, were developed by the IMO to help ship designers test how well a new ship design will handle various types of structural challenges or damage. *Celebrity Solstice* and *Oasis of the Seas* were among the very first passenger vessels built to these new enhanced IMO regulations.

In 2006, with the introduction of the IMO's Safe Return to Port concept, and given the challenges of developing two new classes of cruise ship (Celebrity's Solstice-class and Royal Caribbean International's Oasis-class), we created a Maritime Advisory Board comprised of distinguished maritime professionals to review our efforts and help guide us moving forward (see Point of View).

New ships also provide the opportunity for further safety innovation. For example, *Celebrity Solstice*, *Celebrity Equinox*, *Celebrity Eclipse* and Royal Caribbean International's *Oasis of the Seas* all feature a new bridge design that incorporates a Safety Command Center. This state-of-the-art area allows for centralized control of ship safety features (such as fire alarm and suppression systems, muster station assembly monitoring and control, and fire fighting team locations and activities) that bridge officers must monitor to ensure the safety of the ship.

Our vessels generally have two bridge officers and two lookouts on the bridge at all times. One is always focused on the safe navigation of the ship, while the other supports the watch by completing administrative tasks, such as making logbook entries, monitoring safety equipment and handling communication. Additional officers are on duty any time the vessel is in more challenging waters, for example when there is heavy traffic, nearby land or inclement weather, such as fog. Regardless of how many officers are manning the bridge, the safe navigation of the ship is a key focus. In situations where the safety command center becomes active, the entire area can be closed off from the rest of the bridge so that navigation functions continue without distraction.

## WHAT OTHER KINDS OF SAFETY AND SECURITY INNOVATION HAS RCL INTRODUCED ON ITS NEWEST SHIPS?

In the last two years, we have launched *Celebrity Solstice*, *Celebrity Equinox*, and Royal Caribbean International's *Oasis of the Seas*. All of these ships, as well as the forthcoming *Allure of the Seas*, *Celebrity Eclipse* and *Celebrity Silhouette*, feature significant advances in the manner in which emergency assembly (mustering) is managed.

## LIFEJACKET PROCEDURE CHANGE

Many of the regulations governing shipping and cruise ships today were written decades ago. They have withstood the test of time and served the industry well. For



example, there are regulations that specify the number of lifejackets a ship must carry, for use in the event of an emergency. RCL cruise ships go above and beyond this minimum regulatory requirement by carrying additional lifejackets for adults, children and infants.

Longstanding regulations also require cruise ship guests to participate in a “muster drill” (or “assembly drill”) to become familiar with the location on the ship where they would assemble in the event of an emergency. Although the regulations do not mandate how the drill must be conducted, over time it became common practice for cruise ships to encourage their guests to return to their staterooms just prior to the start of the required muster drill. During the development of *Oasis of the Seas*, we noted some unintended downsides inherent in these practices.

The way the drill was being conducted, guests might have concluded that, in an emergency, they had to return to their staterooms to retrieve their lifejackets, prior to proceeding to their assembly stations. In a real life emergency, however, this may not be desirable. So we changed our muster drill procedures so that when the emergency signal sounds denoting the beginning of the drill, guests proceed directly to their assembly stations from wherever they are on the ship. Once there, and in the event of an emergency, a member of the muster station team would hand guests a lifejacket.

As a result of this concept change, *Oasis of the Seas* was the first ship in our fleet actually designed to have lifejackets near each assembly station, rather than in staterooms. We are looking at other ships to see if we can locate space for the life jacket storage closer to assembly stations. For those ships where lifejackets continue to be stored in guest staterooms, crew members continue to be assigned to ensure that lifejackets are efficiently delivered to guests at their muster stations in the event of an emergency.

## ELECTRONIC MUSTERING AND MUSTER STATION SCREENS

In the event of an emergency, it is important to be sure that all guests are present and accounted for at their muster stations. RCL has historically relied upon a manual process of matching guests with their names on a written manifest that, although effective, is time-consuming. With *Oasis of the Seas*, we enhanced this process by implementing an electronic mustering system that uses small handheld portable digital assistants (PDAs) to scan the bar code on a person’s onboard identity/room key card. A picture of the person then appears on the PDA screen for validation and the person is automatically accounted for in the electronic assembly station master list, maintained in the Safety Command Center.

The PDA system is flexible enough to allow people to be accounted for even if they report to a different assembly station than the one to which they are assigned. It also gives crewmembers the ability to search for people in the system, in case a guest is unaware of the location of other family members and wants to know their status. In the unlikely event that guests would need to evacuate the ship, the PDA would also be used to create individual lifeboat manifests.

The airline industry has long used onboard videos to pass on safety information to its passengers. In keeping with our innovative strategy, RCL has implemented a similar concept on our newest vessels. Now, guests aboard the Solstice-class and Oasis-class ships assemble at their muster stations and watch safety information displayed on large video screens. This is another industry first that helps raise awareness about safety and also ensures an efficient use of our guests’ time during these important drills.



Safety command center



Muster station screens



*Bridge management team*

## WHO IS “DRIVING” THE SHIP WHEN THE CAPTAIN IS VISITING WITH GUESTS?

Our ships are “sailed” by a highly trained and qualified bridge team, under the command of the “Master” of the ship. The title Master is used to refer to the captain in charge of an RCL ship, because we always have more than one qualified captain onboard within a ship’s bridge team. In addition to the Master, the bridge team includes a Staff Captain (second in command), and a team of other licensed officers who are collectively responsible for safe navigation of the vessel, 24 hours a day. Each bridge officer is assigned to one or more of the bridge duties, or “watches,” according to a schedule of daily shifts on the bridge. During their watch they are responsible for all aspects of safe navigation and ship operations.



*Engine control room*

RCL officers are hired for their experience and license credentials, which are based on the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW). Company-specific requirements include simulator training, which emphasizes bridge resource management techniques that stress effective communication and situational awareness. In addition, simulator training ensures that officers are proficient in, and clearly understand, specific shipboard navigational systems.

The Master also oversees a very capable team of ship’s engineers. Under the direction of the Chief Engineer, this team ensures that the ship remains mechanically sound and that all systems perform as required. The Master also oversees the complex activities of the Hotel Department. This department, under the direction of the Hotel Director, is responsible for all the day-to-day guest interaction activities, from stateroom maintenance and cleaning, to food and beverage service, to entertainment and shore excursion activities.



*The Hotel Director oversees the very active guest areas of the ship.*

At the corporate level, RCL oversees the important area of navigation safety by maintaining a Navigation Working Group in our Miami shoreside office. The group, which meets bi-weekly, is made up of representatives from Marine Operations from each RCL brand, and personnel from our Maritime Safety Department. This group reviews the circumstances of incidents related to navigational safety and is responsible for continuously improving navigation policies, procedures and equipment.

## ARE THERE SECURITY INCIDENTS ONBOARD RCL SHIPS?

RCL cruise ships, like every other location in the world, occasionally experience security incidents that adversely impact their guests or crew. Relatively few people encounter such a situation, yet even one such incident is too many. For this reason, RCL’s security efforts are focused not only on effective response, but also on effective prevention and corrective action. RCL goes to great lengths to ensure that our guests and crew are safe and that we deliver a fun and enjoyable vacation experience.

In 2007, we created our Global Security Department, overseen by a dedicated executive-level security professional who reports directly to the RCL Chairman and Chief Executive Officer. Global Security’s staff members have considerable prior professional work experience in international, national, state and local law enforcement and governmental security. Current Global Security employees have previously served in agencies such as the Israeli Defense Forces, the U.S. Federal Bureau of

Investigation, the U.S. Coast Guard, the U.S. Drug Enforcement Administration, the Florida Attorney General's Office, the New York City Police Department and other similar entities responsible for public safety. This expansive breadth of knowledge brings real-life perspective and practical appreciation of the measures needed to effectively ensure the safety and security of our guests and crew.

Our Global Security department has a team of senior investigators, each of whom are prior law enforcement officers. They are responsible for guiding shipboard personnel in preserving evidence, determining appropriate law enforcement jurisdiction, ensuring crime allegation reporting and understanding incidents. They also engage RCL's CareTeam to provide victims of alleged crimes and their family members with emotional and logistical support during times of need.

RCL policy divides security incidents into three different types: Violations of the Guest Conduct Policy (GCP), crime allegations, and missing persons reports. Such incidents are addressed by the onboard security team and are reported to, and coordinated with, RCL's Miami-based shoreside security team for oversight. Any allegations of crime are reported to the appropriate law enforcement agency, and we fully cooperate with the efforts of those agencies. Any person reported as missing is typically located within minutes; but if not, the incident is reported to the Miami corporate headquarters and appropriate governmental officials, including maritime search and rescue agencies, where indicated.

## GUEST CONDUCT POLICY VIOLATIONS

The purpose of the GCP is to help ensure that all guests and crew are able to participate in a safe, secure and enjoyable cruise experience, including their time inside terminals, during transfers to and from ships, while onboard, in ports-of-call, during shore excursions and at our private destinations. While its provisions may seem like common sense, our guests come from varied and diverse backgrounds, and the GCP helps provide a common understanding of the behavioral standards in place on RCL ships.

GCP is a written code of behavior that is expected of all guests sailing on an RCL cruise vacation. It is available for review online, and a copy is placed in each guest stateroom.

The GCP addresses topics including safety and security, guest-crew interaction, verbally abusive or offensive language, inappropriate or abusive behavior, unsafe behavior, discourteous or disruptive behavior, smoking, curfews, disembarking from a ship, parental and guardian responsibility, alcohol, prohibited items, health and environment, and age policies. For example, although our crew members are friendly, outgoing, helpful and will do their very best to make a guest's vacation as enjoyable as possible, they are prohibited from engaging in physical relationships with guests or socializing with guests beyond their professional duties. They are also not permitted in guest staterooms, except for the performance of their shipboard duties. Likewise, guests are prohibited from engaging in physical relationships with crew members and are not permitted in any restricted or crew area of the ship, including crew staterooms and corridors. A guest may be debarked from the ship for violating this policy, and crew members will be fired for any such violations.

Most violations of the GCP by guests are minor in nature and can be resolved through



*Emergency phone onboard*

### Security Incident Oversight

RCL closely tracks security incidents and security incident response. All such allegations are fully documented, and we rely on a close working partnership between the fleet and shoreside security professionals in responding to any serious security incident. We strive to understand incidents and seek lessons learned that can inform prevention strategies.





#### Shipboard Security Staff

Security Personnel are always available to assist guests.

counseling of the guest by a ship's officer. However, on occasion, a guest may commit a serious violation of the GCP that may result in removal of certain onboard privileges, confiscation of prohibited items, intervention by law enforcement personnel, removal from the ship at the next port-of-call, and even denial of boarding on future RCL sailings.

### CRIME ALLEGATIONS

As a company, we strive to provide our guests with a safe, secure and enjoyable cruise vacation and our employees with a safe and secure working environment. But despite our efforts, occasionally a guest or crew member will allege being the victim of a crime during their cruise. These incidents may involve an allegation of drug possession, theft, assault and occasionally even sexual assault. Such allegations may relate to activity ashore during a port-of-call or onboard the ship itself. In either case, RCL takes every allegation of crime seriously. We are committed to reporting all allegations of crime to the appropriate law enforcement agency and to cooperate fully with authorities in their resolution of the allegation. If a crime allegation is received, we care for those involved, preserve evidence, report to law enforcement officials and support their response, and take steps to understand the incident so we can seek ways to prevent a recurrence. In a situation where a crime allegation is reported, our guests and crew may be reassured to know that a dedicated staff of professionals is committed to developing the best practices possible to prevent and effectively respond to incidents.

### MISSING PERSONS

Our ships react quickly if we receive an indication that someone traveling on one of our cruise ships is missing. Almost all such situations are happily resolved within just a few minutes. There are four basic circumstances that could lead to a missing person report during a cruise:

- Someone who is still onboard but for a short time could not be located;
- Someone who went ashore during a port-of-call and failed to return prior to the ship's scheduled departure;
- Someone who left the ship at the end of a cruise but was initially not properly removed from the list of those still aboard; and
- Someone who went overboard during the cruise.

In any of these situations, we have detailed procedures in place to resolve the person's "missing" status. In all but three such situations in 2009, the guest or crew member involved was rapidly located and determined to be fine. In the three remaining incidents, sadly, the missing person was determined to have intentionally gone overboard from the ship (either through CCTV evidence or eyewitness accounts). Two of these incidents resulted in the death of a guest, while the third resulted in the safe recovery of a crew member.

All RCL cruise ships are designed and constructed to international ship building safety standards, including those of the *International Convention on Load Lines* and the *International Convention for the Safety of Life at Sea*. Cruise ships must also conform to additional safety and security requirements imposed by flag states, as well as the safety requirements of the nations upon which cruise ships call. Compliance with these safety and security standards are checked again and again by professional classification society surveyors and government agencies, such as the U.S. Coast Guard and the UK Maritime and Coastguard Agency (MCA). In the case of ships calling on U.S. ports for example, the U.S. Coast Guard conducts thorough and comprehensive safety inspections of the ship, including examinations of guardrails.

#### 2009 Crime Allegations:

In 2009, RCL ships carried more than 3.6 million guests and crew during its voyages. During that time, seven guests or crew alleged that they were raped while aboard; 12 alleged that they were sexually assaulted (other than rape) while aboard; and six alleged they were assaulted and received a serious injury while aboard. (It is important to note that the above figures reflect allegations of crime, each of which was reported to law enforcement without regard to its validity. In some of the above incidents, law enforcement may have ultimately determined the allegation was untrue.)

For comparison purposes, the U.S. FBI's Uniform Crime Reporting (UCR) sets forth an average annual shoreside rate of about 29 rapes per 100,000 population. The 2009 RCL shipboard rate is about seven allegations per 100,000 population, or about one quarter this UCR shoreside figure.

The International Convention on Load Lines has established the internationally approved standard for minimum cruise ship guardrail height at one meter, or about 39 inches. RCL cruise ships are designed and constructed *Above and Beyond Compliance* with this standard, with minimum guardrail heights of 42 inches or more throughout the fleet. (By way of comparison, the United States Occupational Safety and Health Administration (OSHA) requires that guardrails at construction sites be 42 inches in height, +/- three inches, and the customary guardrail height on hotel and apartment building balconies is 42 inches, as required by many state and local building codes.)

However, despite clear warnings to the contrary, some cruise ship guests elect to sit, stand, lean over, climb, or pose on safety guardrails. Sometimes such actions result in accidental overboards and death. At other times, those who go overboard from cruise ships do so intentionally, in an apparent attempt to commit suicide. For example, in each of the three separate overboard incidents from RCL ships in 2009, eyewitness accounts and/or CCTV evidence revealed that the person deliberately climbed over a guardrail to depart the ship.

## **DOES RCL CONSIDER SAFETY AND SECURITY BEFORE CALLING AT A PORT?**

It is important to RCL to offer vacations to locations where guests want to travel, and we recognize that people have differing opinions and thresholds for what they consider safe and secure. Information about the security situation in destinations around the world is publicly available on regularly updated travel security and government websites. Just as for land vacations, this is helpful and important information for guests to consider in preparation for a cruise vacation.

Safety and security considerations are an important part of our decision-making process in determining where our ships will call. Even after a final itinerary is offered to our guests, we continue to monitor indications that a selected port's security, political or social landscape has materially changed. Such changes may occasionally occur just prior to or during a cruise. In those instances, the change is evaluated by shoreside and shipboard professionals, who may seek assistance from representatives within the port itself or from a variety of government and private intelligence companies. Through this process, new developments may be identified and decisions made about what, if any, additional security measures may be warranted. Actions taken may be imperceptible to the guests, such as a discreet enhancement of onboard or port state security protocols; or, they may involve steps that are more visible, such as the presence of additional port state security measures, verbal or written guest advisories or even cancellation of a port-of-call.

## **DOES RCL HELP A GUEST WHO BECOMES A VICTIM OF AN ACCIDENT OR CRIME WHILE ASHORE DURING A PORT-OF-CALL?**

Security is a shared responsibility, and nowhere is this more apparent than when a guest is ashore in a port-of-call. Just like in our hometowns, individuals must do their part by being aware of their surroundings, carefully choosing where they visit, and taking advantage of publicly available information, such as travel security assessments on government web sites. To add a further layer of security beyond personal vigilance and local law enforcement, RCL has procedures in place to help provide a safe port-of-

### ***Cruise Vessel Security and Safety Act***

The *Cruise Vessel Security and Safety Act* bill currently pending in the U.S. Congress (mentioned earlier in this report) would, among other provisions, codify: RCL's practice of 42+ inch high guardrails; RCL's practice of reporting missing persons to the FBI; and public reporting of certain situations where persons go overboard from cruise ships.



Bureau of Consular Affairs website:  
[www.travel.state.gov](http://www.travel.state.gov)



Zip line at Labadee, Haiti

call experience for our guests and crew and to assist in the case of an emergency. Guests have several options available for exploring our various ports-of-call, from exploration on their own to participation in an organized shore activity or excursion, such as sightseeing bus tours, scuba diving, cooking classes, parasailing, horseback riding, visits to nature preserves, or any of the hundreds of other interesting offerings.

Although shore excursions are independently owned and operated and not owned or controlled by RCL, there are some advantages to selecting an organized activity that is offered by RCL. Prior to agreeing to offer an operator's excursion to our guests, we require that they meet certain guidelines and standards, such as carrying insurance, complying with the business requirements of the nation in which the tour is operating, and representing the level of skill or fitness required of the tour.

Despite the best efforts of governments, guests, RCL and local tour operators, accidents do happen from time to time. Some of those are serious. RCL will assist guests who are the victim of an accident or crime. RCL CareTeam members will coordinate emotional support and other care in an effort to help guests through this difficult time. (See the CareTeam Section of this Stewardship Report for more details on this service.)

If the incident involved an RCL-offered excursion, an evaluation will be conducted to understand the circumstances and a decision will be made as to whether to continue to offer the operator's excursion to our guests.

## WHAT HAVE WE LEARNED ABOUT SAFETY AND SECURITY AND WHERE ARE WE GOING?

As can be seen in the sections above, despite our best intentions and considerable effort, in 2009 a small number of guests experienced hardship during their cruise with RCL. We strive to prevent incidents, yet even when we succeed, the most important part of incident prevention will remain the need for self-critical analysis to permit us to continuously improve and to learn from prior incidents.

It is often difficult to validate the success of new initiatives, since it's hard to count incidents that never occur in the first place. However, occasionally, there is a process change we make whose value becomes apparent.

One such change, which has its roots in a guest tragedy six years ago, showed its value in a recent missing person report. During 2004, the father of one of our guests notified us that, five weeks earlier, his adult daughter had sailed with us alone and may have gone overboard during her cruise. Even though several factors complicated resolution of this issue, it was quite clear that we needed to implement a reliable way to know that all guests have successfully debarked at the end of their cruise. At the time of this incident, although we were quite diligent at tracking guests as they left and returned to the ship at ports-of-call during the cruise, it was not company practice to ensure that all guests had left the ship at the end of their cruise.

This realization, after the 2004 incident, led RCL to begin requiring each guest and crew member to also present their on-board identification card (A-PASS) as they debarked the ship at the end of their cruise, so that their departure could be electronically recorded. In 2009, this process was further strengthened to require each ship to telephonically notify RCL's shoreside Global Security Department of any guest or crew member who failed to debark the ship as required, prior to the ship beginning



its guest boarding for the next cruise.

In early 2010, just prior to publishing this 2009 Annual Stewardship Report, just such a situation occurred. A cruise ended with our electronic process indicating that a guest who was traveling alone had failed to debark as expected, and Global Security was promptly notified. Immediate efforts were initiated to resolve the discrepancy. In that process, it was determined that the guest's belongings were still located in the guest's stateroom and a combination of circumstances and CCTV images indicated an overboard situation. Notifications were quickly made to the U.S. Coast Guard and they initiated a search of the area where the ship was when the overboard occurred. The RCL CareTeam immediately notified the guest's loved ones of the situation. A very short time later, the CareTeam re-contacted the guest's loved ones to advise that our guest had been rescued from the water by a passing fisherman.

Unlike the 2004 overboard, this incident did not end in tragedy. Importantly, it also demonstrated the effectiveness of the procedures that were implemented after the 2004 tragedy. RCL was able to more quickly recognize the overboard, involve rescue personnel and initiate communication with the guest's loved ones. Since 2003, RCL has carried more than 26 million guests and had 14 go overboard, an average of two per year. We continue to look for reliable ways to quickly detect overboard situations. This procedural change for reconciling all guests' departure at a cruise's completion is a part of that effort and was initiated as a result of an in-depth review of the 2004 tragedy. As a further example of our commitment to improvement, RCL has complemented lessons learned efforts with external input in preventing incidents. For example, input from a guest who experienced a cruise ship incident in early 2006 ultimately led to the complete rewriting of corporate policy on incident response. It also led to substantial enhancements in security and medical protocols, staffing and corporate incident response oversight. Each of these changes is noteworthy in its contribution to a total change in approach to incident response.

Security is a shared responsibility. RCL owes and extends its thanks to those who have played such an important role in contributing to its safety and security enhancements. Together we continue to generate ideas and strategies that promote positive change and improvement.



#### Door Viewer Project

An important physical shipboard change has been made as a result of a direct verbal suggestion by a 2006 guest. The guest's recommendation was that we install door viewers (or "peep holes") in each guest stateroom on every ship in the Royal Caribbean, Celebrity and Azamara Club Cruises fleet. Now, just as in a hotel, our guests have the ability to see who is at their door prior to opening it.



*Drills, exercises and lessons learned are important components of continuous improvement.*



## TRAVELER SAFETY AND SECURITY TIPS

Just as when traveling on land, there are steps that a guest can take to help ensure the best vacation experience. Several are offered below for consideration.

- Our ships travel internationally and each nation we visit is governed by its own set of laws. Guests should contact their government for travel, safety and security information on the countries they will visit during their cruise vacation. For example, the U.S. Department of State recommends persons traveling abroad regularly monitor the Bureau of Consular Affairs Internet web site at [www.travel.state.gov](http://www.travel.state.gov)
- Consume alcohol responsibly to retain your ability to recognize and avoid potentially dangerous situations.
- Parents and guardians must supervise young guests traveling with them on their cruise.
- Make new friends carefully, just as you would at home. Do not invite strangers into your stateroom. Close and lock your stateroom door securely and identify visitors before opening.
- Do not lean over, climb or sit on any railing as you could fall and be injured. Hold onto banisters or rails when using stairwells.
- Security staff is on duty 24 hours a day. Should you encounter an emergency situation, please immediately dial the ship's emergency number for immediate assistance. Should any situation require law enforcement interaction, our security team is trained to involve the proper agency. All crimes are reported to law enforcement officials and we fully support their investigations.
- Guests should refer to the guest directory that is provided in each stateroom for additional safety and security tips.



Rio de Janeiro, Brazil



Copenhagen, Denmark



Dubrovnik, Croatia





# MEDICAL / PUBLIC HEALTH



Machu Picchu, Peru



I joined Royal Caribbean Cruises Ltd. in the summer of 2008 as the company's first Global Chief Medical Officer. After working intermittently as a cruise ship physician and consultant to the cruise industry during my 25 years as an emergency medicine specialist, educator and emergency department chairman, accepting this challenge seemed the next logical step in my career.

At every stage of the interview process, with each new person I met and each new detail I learned about the company, I became convinced that Royal Caribbean was the perfect fit for me, a company genuinely committed to the highest ideal of "doing things right."

Overseeing RCL's Medical/Public Health Department is indeed an immense challenge and responsibility. The well-being of our guests and crew is of fundamental importance to the company, and we are constantly aware of this responsibility in all of our policy areas, from medical operations and public health to crew wellness and emergency services.

RCL's commitment to conduct business *Above and Beyond Compliance* with existing laws and regulations extends to our efforts in medical operations and public health, as the well-being of our guests and crew is of fundamental importance to the company. We are extremely proud of our shipboard medical facilities - located on each of our ships - which are built, stocked and staffed to meet or exceed guidelines set by the American College of Emergency Physicians, Cruise Ship Medicine Section. In addition, we work closely with the U.S. Centers for Disease Control and Prevention's Vessel Sanitation Program to meet or exceed what are some of the highest sanitation standards in the world, for everything from food and drink to swimming pools and whirlpools.

At RCL, we believe that great vacations begin with great employees. We are committed to ensuring the health of our more than 50,000 employees through a comprehensive program of pre-employment medical exams, periodic re-examinations and an ongoing crew wellness program on each of our ships.

Our CareTeam is a dedicated group of specialists available round-the-clock to support guests or crewmembers who, during their cruise, face a personal emergency either at home or aboard. This program exemplifies RCL's commitment to providing the highest levels of personal and professional assistance.

In keeping with our overall company commitment to responsible stewardship, my departments work closely with our colleagues in RCL's Environmental Stewardship Department to reduce or eliminate pollutants and waste at the source. An excellent example of this collaborative commitment is the digital x-ray technology being installed on our ships. Digital images can be electronically transmitted to shoreside medical professionals in the event their diagnostic assistance is needed. As an added benefit, digital x-ray machines do not require fixer chemicals that are required to develop x-ray images on traditional film. They also do not use any x-ray film, yet another potential pollutant eliminated at its source.

Hippocrates, the father of medicine, must have spent countless hours gazing upon the Aegean Sea from his birthplace on the Greek island of Kos. In all of his wisdom, he never could have imagined that one day the largest and most modern cruise ships in the world would sail beyond the horizon, staffed by dedicated physicians and nurses practicing modern medicine far out at sea.

I am honored to lead the RCL Medical/Public Health team in providing the best possible medical care and public health standards at sea. We are grateful to every one of our guests and crew members who entrust us to provide these services onboard our ships. Looking to the future, we are committed to taking these achievements to the next level, with more advanced medical equipment, medications and facilities. I invite you to read about our efforts in this report to see more examples of our enthusiasm and dedication to being responsible stewards of the health and well-being of all our guests and crew.



Dr. Art Diskin  
Vice President, Medical and Public Health and  
Global Chief Medical Officer  
Royal Caribbean Cruises Ltd.





Mykonos, Greece

# MEDICAL/PUBLIC HEALTH OVERVIEW



Royal Caribbean Cruises Ltd. (RCL) strives to provide our guests with the vacation of a lifetime, and good health and well-being are important aspects of an enjoyable cruise experience. While the vast majority of our guests remain in the best of health during their cruise vacation, occasionally a guest or crew member does become ill or injured. The medical needs on any given cruise are unpredictable and can range from sea sickness, sunburn or sore throat to a heart attack, or even cardiac arrest. In the event of illness or injury, RCL ships maintain medical teams staffed with independently contracted doctors that are available to assist guests and crew members 24 hours a day, seven days a week.



RCL's goal is to develop, maintain and staff medical facilities capable of assisting in a wide variety of medical conditions. Although our onboard capabilities are not the same as those of a hospital or surgical center, we can provide care that addresses a broad spectrum of medical needs. We are also able to take steps that help stabilize people with more serious medical situations, and facilitate their transition to a land-based medical facility when and where appropriate.

For example, we have x-ray facilities, but not the more sophisticated capabilities of MRI scanning. We are staffed with independently contracted physicians and nurses who meet established guidelines and come to us with experience caring for both acute and chronic health care problems; however, we do not have onboard surgeons.

Our medical teams can provide advanced diagnosis of medical conditions and have at their disposal a broad formulary of drugs for a variety of medical needs. They also have access to 24-hour medical support from facilities such as the Cleveland Clinic in Ft. Lauderdale, Florida.

Our medical facilities also provide medical care for our crew members. They are supported by land-based medical experts and specialists, as well as a shoreside team

of professional case managers and registered nurses who help coordinate their care around the world.

Our public health duties include ensuring the safety of the ships' food and water (both potable and recreational), minimizing the opportunities for pest infestations onboard, and limiting the chances of an infectious disease being brought onboard. We adhere to regulatory guidelines established by the U.S. Centers for Disease Control and Prevention (CDC) and other regulatory agencies under whose jurisdiction we may fall while our ships sail throughout the world.

There are also many regulations that govern public health and the proper cleaning of our ships. These include international, national and even localized requirements to which all cruise line companies must adhere. We work closely with U.S. and international public health agencies, as well as other governmental, regulatory and compliance authorities, and routinely receive high ratings from ship inspections conducted by organizations such as the United States Public Health (USPH) Department. Through training and strict cleaning policies and procedures, we are anchored in a tradition of excellence for public health and sanitation.

In the event of an onboard medical emergency, our company's CareTeam provides support to guests, family members, companions and crew members. For more information about CareTeam, visit the CareTeam section of this *2009 Stewardship Report*.

## WHAT ARE THE GUIDELINES THAT GOVERN SHIPBOARD MEDICAL FACILITIES AND PUBLIC HEALTH PROCESSES?

Shipboard public health and medical facilities are subject to a myriad of guidelines from national and international agencies and organizations. Our shipboard medical facilities are built, stocked and equipped to meet or exceed guidelines established by the American College of Emergency Physicians (ACEP), Cruise Ship & Maritime Medicine Section. ACEP's Health Care Guidelines for Cruise Ship Medical Facilities address many critical areas, including medical facility size, medical equipment and supplies, medical staff credentials, medical record and communication systems, medications, procedures, basic laboratory and x-ray facilities, and health and contingency planning. In fact, RCL's Vice President and Global Chief Medical Officer, Dr. Arthur Diskin, has been an active ACEP member for more than 20 years, and served as the immediate past Chairman of ACEP's Cruise Ship & Maritime Medicine Section.

RCL medical facilities are scaled in proportion to the size of the ship and the number of passengers and crew according to ACEP guidelines. Ships will have one to three independently contracted doctors and two to five nurses onboard, based on these criteria. We recruit medical staff from around the world, seeking doctors and nurses who are interested in working on our ships and have the broad skill sets, experience, training and personal recommendations from their supervisors and peers to meet our standards. We confirm all licenses and graduation from accredited medical schools and closely examine all post-graduate training. Background checks are done and professional references are required. All personnel, regardless of background, must also successfully complete Basic and Advanced Life Support Training Courses. In addition to cardiac care skills, our physicians and nurses are expected to be able to manage complex problems, such as respiratory and airway emergencies, as well as suture, handle orthopedic issues, take and interpret routine x-rays and perform and



*Splendour of the Seas*



*Celebrity Mercury*





*Centers for Disease Control and Prevention, Atlanta, GA*



*European Centre for Disease Prevention and Control, Stockholm, Sweden*

interpret basic—but comprehensive—laboratory analysis. They must be fluent in the official language of the ship, which for RCL is English. Many also speak one or more additional languages.

Regarding public health, the U.S. CDC's Vessel Sanitation Program (VSP), which was established in 1975, guides the cruise ship industry in preventing and controlling the introduction, transmission and spread of gastrointestinal (GI) illnesses on cruise ships. VSP operates under the authority of the Public Health Service Act of the United States (42 U.S.C. Section 264 Quarantine and Inspection Regulations to Control Communicable Diseases). RCL public health policies have been developed through a close working relationship with the VSP. We meet or exceed their construction and operational guidelines, which VSP regularly updates as information becomes available, technology advances and the size and complexity of ships increases.

The comprehensive 277-page VSP Operations Manual represents the official repository of all CDC/VSP shipboard public health standards, procedures and inspection criteria. It addresses such topics as: communicable disease prevention, gastrointestinal illness surveillance, potable water, swimming pools and whirlpool spas, food safety, integrated pest management, housekeeping and child activity centers.

Cruise ships are subject to unannounced inspections by CDC/VSP inspectors, who deduct points for deficiencies. In fact, under CDC regulations, each of our ships that calls upon a U.S. port is subject to twice yearly VSP inspections. For our ships that do not call on a U.S. port, RCL conducts inspections by and through retired USPH inspectors based upon the same official USPH guidelines/protocols. Our scores are closely monitored throughout the company and ship captains and their crews pride themselves highly on the scores they receive.

To support each ship's extraordinary efforts to attain the best possible scores when visited by the team of VSP inspectors, RCL maintains an internal team of public health experts, including experienced inspectors who are thoroughly familiar with the VSP Operations Manual. These experts, as well as those onboard our ships, attend CDC/VSP food safety and environmental sanitation training seminars to keep abreast of the latest in shipboard sanitation and public health. They also take advantage of the VSP's consultative services for reviewing plans for cruise ship renovation and new construction.

As RCL continues to expand deployment of our ships around the world, we are subject to an ever-widening variety of public health regulations from other countries. While many are similar or even identical to those of the CDC, each may have its own local flavor.

For example, the European Working Group for Legionella Infections (EWGLI) was formed in 1986 to develop a standard approach to control and prevention of travel-associated Legionnaires' Disease across all European countries. EWGLI members are scientists with an interest in improving knowledge and information on the epidemiological and microbiological (clinical and environmental) aspects of Legionnaires' Disease. This is achieved through international surveillance of the disease, as well as developments in diagnosis, management and treatment methods.

EWGLI and the European Surveillance Scheme for Travel Associated Legionnaires' Disease published the comprehensive European Guidelines for Control and Prevention

of Travel Associated Legionnaires' Disease. This guide includes step-by-step procedures for reporting, risk assessment, environmental investigation, control and prevention of Legionnaires' Disease in any environment.

Our cruise ships in Europe are subject to the jurisdiction of EWGLI. If a current or former guest is diagnosed with Legionella, EWGLI will conduct an investigation to determine the origin of this illness, which may include scrutiny of a ship or ports-of-call during the cruise. In the United States, the CDC performs a similar function. As of May 2010, the functions of EWGLI will be moved into the European CDC.

Another example is the SHIPSAN program, which is being developed by the Directorate General for Health and Consumers of the European Commission (EC) to perform standardized VSP-type inspections on cruise ships and ferries in Europe. According to the program, 320 million ferry passengers and 192 cruise ships from 66 cruise lines passed through European ports in 2007. To promote greater uniformity in the public health standards and practices among such a diverse group, a SHIPSAN project study involved 75 participants from 13 European countries, as well as the European Centre for Diseases Prevention and Control, the World Health Organization, the International Maritime Organization and the U.S. CDC's VSP. RCL's public health department was also invited by SHIPSAN to participate in these meetings in Sweden and Luxembourg to offer comments and consultative input to this newly developing European organization.

This collaborative effort will result in the formation of a European Union (EU) SHIPSAN Manual, which will provide sanitation standards and guidelines based on EU directives and legislation. It will include standards for early surveillance and identification of communicable diseases onboard passenger ships to prevent the introduction and spread of diseases to and throughout the EU, using SHIPSAN-based training, inspections and port health authority communication networks applicable for ships sailing in EC waters.

## WHAT IF A GUEST OR CREWMEMBER HAS A MEDICAL EMERGENCY, SUCH AS A HEART ATTACK, WHILE THE SHIP IS AT SEA?

Each RCL ship has a dedicated medical facility that is staffed with one to two independently contracted doctors and three to six nurses, depending on the size of the ship and number of guests and crew onboard. Shipboard medical facilities are available for the convenience of guests in the event medical treatment becomes necessary during the course of their cruise. The medical facilities are generally open six hours daily, but medical professionals are available 24 hours a day for any acute guest or crew medical needs that may arise. There are procedures for emergency communications and deployment of the medical teams anywhere on the ship where services are needed. These teams include additional trained personnel to carry equipment and stretchers if needed. Automated external defibrillators are deployed in various areas around the ships and are available to the medical staff.

To meet the needs of our guests and crew, RCL medical facilities stock a variety of equipment in the medical facilities, including cardiac monitors/defibrillators, ventilators, x-ray machines and processors, laboratory equipment (for a variety of acutely needed tests), a formulary of acute care medications and a variety of minor surgical and orthopedic supplies. All such equipment is selected based not only on reliability, but also on its ability to maintain and perform self assessments to ensure accuracy



*A medical care room on Oasis of the Seas*

## POINT OF VIEW

*"It is always a pleasure to receive calls from RCL physicians onboard the ships to discuss complex cardiac cases. I find their physicians to be highly competent and capable".*

—Laurent Dreyfuss  
 Attending Emergency Medicine Specialist,  
 Cleveland Clinic, Ft. Lauderdale, FL



United States Coast Guard medical airlift

of results. Other factors are considered in selecting equipment. For example, our ventilators are a cutting-edge model that meets our needs and yet is also small enough to accompany a patient being evacuated by helicopter.

Our doctors have access to medical material and research to help them remain up-to-date on the latest advances and practices while onboard. They also subscribe to informational sources such as MD-Consult and The New England Journal of Medicine. If needed, they can access shoreside medical professionals, including a guest's primary physician or the Cleveland Clinic in Ft. Lauderdale. RCL also requires all of our doctors and nurses to maintain Advanced Cardiac Life Support (ACLS) training provided through the well-respected American Heart Association. This training, which ensures that our medical teams maintain their cardiac resuscitation skills at peak performance at all times, is *Above and Beyond Compliance* with the requirements of the ACEP cruise ship guidelines.

In responding to medical incidents, RCL's goal is to first stabilize emergency patients and, when necessary, evacuate the patient to an appropriately equipped and staffed shoreside medical facility as soon as practical. Evacuation of emergency medical patients from a ship may take place at a scheduled port-of-call, or may require a deviation from the ship's scheduled itinerary to the nearest appropriate port. Another alternative that may be available for use in life-threatening situations is evacuation via helicopter either from the ship's helipad (where available) or via basket lift. Such evacuation services are provided by government agencies such as the U.S. Coast Guard or the Royal Navy.

In emergency medical care situations such as heart attacks, congestive heart failure or cardiac arrhythmias, we maintain special medications onboard to stabilize the patient where possible until the patient can be medically evacuated to an appropriate shoreside medical facility.

Maintaining our medical team's ACLS skills is important to be able to accurately diagnose a serious cardiac event. This enables physicians to provide the appropriate medications and therapy when seconds count. An electrocardiogram may be obtained within minutes of the initial onset of symptoms and our ships carry cardiac diagnostics, commonly known as cardiac marker tests. These tests can quickly and accurately detect specific cardiac enzymes which may be present in the blood early during a heart attack.

A second major cornerstone in our cardiac treatment is known as thrombolytic therapy, commonly referred to as clot buster medications. These medications are specifically designed to rush to the scene of a blood clot in the heart and break it up, thereby averting any further damage to the heart muscle. All RCL ships are stocked with these cardiac tests and medications.

RCL was one of the first cruise lines in the world to equip its ships with Automated External Defibrillators, more commonly known as AEDs. AEDs are small portable machines that can restart the heart of a person who has collapsed from a sudden cardiac condition.

Each of our ships has portable x-ray capability which is often critical in making a correct cardiac or respiratory diagnosis. Our newer ships are being equipped with digital x-ray processing technology, which provides the ship with the capability to transfer x-ray images taken onboard the ship to shoreside experts to assist when and if a second opinion is needed.



## HOW DOES RCL ENSURE THAT ITS CREWMEMBERS ARE HEALTHY WHEN THEY JOIN THEIR ASSIGNED SHIP, AND REMAIN HEALTHY THROUGHOUT THEIR EMPLOYMENT?

It is important to make sure our crew members are in good health and can effectively perform the essential functions of their positions before joining their assigned ship. With an ever-increasing workforce of nearly 50,000 crew members from over 100 different countries throughout the world, this can be a challenging process. One of the ways we meet this goal is through our Pre-Employment Medical Examination (PEME) and Re-Employment Medical Examination (REME) programs. These two important processes help ensure that candidates for employment have met and passed their medical examinations and are well-prepared to safely begin working onboard.

PEME and REME clinics screen new and re-hired applicants with a battery of comprehensive medical examinations and diagnostic tests. Applicants must pass a number of requirements set by the flag state of their respective vessels, the PEME/REME clinic, the government of their country of origin, and finally RCL's medical standards. These health assessments help ensure our crew members are ready for life at sea. The information is reviewed to help assure each applicant is medically fit to perform the essential functions of the job, and that they are free of potentially infectious and/or serious underlying medical conditions that could be detrimental to onboard health.

Once hired, it is important to keep our valued crewmembers as healthy and happy as possible. RCL is responsible for overseeing the provision of prompt, proper and adequate medical care to each of its nearly 50,000 crew members who may become ill or injured while in the service of the vessel. As in any other large population, crew members may develop hypertension, diabetes, high cholesterol or other chronic problems. Our goal is to effectively diagnose such illnesses and then help the crew member manage his or her condition once we become aware of the problem. While all crew members are encouraged to have primary health care providers in their home countries, we are available to help manage these conditions for the periods they are onboard.

We do this through our wellness program and our shipboard medical delivery system. Our Crew Wellness Program is overseen by an occupational health board-certified registered nurse. Throughout the year, this program conducts education and awareness programs that promote healthy lifestyle changes, strategies for managing chronic illness and other informative health-related topics. Key initiatives include the importance of crew health screening, smoking cessation, healthy eating and cancer awareness.

RCL also actively encourages voluntary participation in our seasonal vaccination program. For example, in 2009, we achieved a 75-percent rate of participation in our crew seasonal influenza vaccination program. This was a significant increase over the prior year's goal of 40 percent. We hope to do even better next year by reaching 80 percent of our crew. Our influenza immunization rates exceed most land-based programs, and reflect our commitment to maintaining a healthy crew.

When crew members become ill, our goal is to help them become healthy again as soon as possible, so they can feel better and return to work fit for duty. In support of this effort, we provide access to a wide range of medical care, ranging from care



*Freedom of the Seas*



*Seasonal vaccination program*



Employee wellness programs

provided by the ship's doctor or a shoreside specialist, to care in their country of origin or treatment at one of the "centers of medical excellence" we are coordinating throughout the world. These centers of excellence provide the best available care for our crew depending upon their condition and location.

We oversee and manage shoreside crew medical care through a team of experienced, caring and professional case managers and registered nurses who coordinate crew medical care, including doctor's visits and inpatient care throughout the world. Once crew members have received treatment, we also oversee the management of their recovery once repatriated to their home country to the point the crew member has been declared as having reached maximum medical cure.

Should a crew member experience a major accident or illness or have a family emergency or crisis, we extend the services of our CareTeam (see the CareTeam section of this Report).

## HOW DOES RCL PROMOTE THE HIGHEST PUBLIC HEALTH STANDARDS THROUGHOUT ITS FLEETS?

We take our public health responsibilities very seriously. The VSP Operations Manual provides guidelines for everything from communicable disease prevention, gastrointestinal illness surveillance, potable water, swimming pools, whirlpool spas and hot tubs, food safety, integrated pest management, housekeeping and child-activity centers.

To comply with these and other national and international guidelines, our in-house public health experts are dedicated to, and responsible for, implementing effective procedures and training for each of our ships around the world. Our team of public health inspectors works closely with the CDC to effectively implement the VSP provisions and to uphold the highest sanitation and public health standards possible. We also contract retired VSP inspectors to help with our program by conducting unannounced inspections throughout our fleet.

We supplement our own extensive internal experience where necessary by accessing outside experts in specialized areas such as horticulture, pest management and training of pool technicians. This helps us ensure we remain on the cutting edge of public health issues. This is particularly important as RCL continues its innovation in design on new cruise ships. For example, we worked closely with both USPH and the U.S Department of Agriculture to perfect our procedures in our new Central Park neighborhood onboard *Oasis of the Seas*. Central Park features over 12,000 separate plants and trees, made up of more than 93 different species.

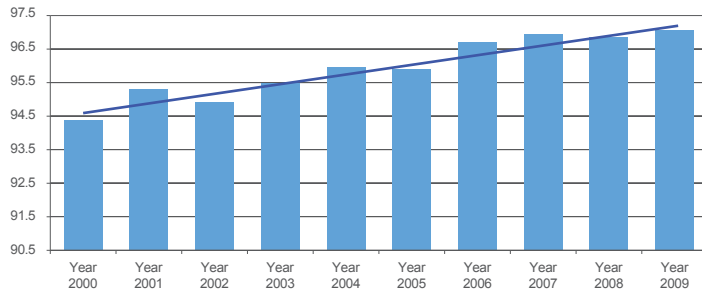
Our public health efforts are closely aligned with the work of our shipboard Environmental Officers. Together, area experts coordinate strategies and develop complementary policies to ensure we not only meet our public health needs, but that we do so while acting in an environmentally responsible manner.

In 2009, RCL achieved a fleetwide average USPH inspection score of 96.86 percent (see Figure 8, on next page)



Central Park, onboard the *Oasis of the Seas*

Figure 8 – RCCL USPH Average Inspection Scores, 2000 - 2009



Hand washing is the best method of prevention

## HOW DOES RCL PREPARE TO DEAL WITH ILLNESSES SUCH AS SEASONAL INFLUENZA?

Our public health responsibility to our guests and crew extends far beyond our ships, and we are constantly monitoring outside factors and events that may have an impact upon our ships, guests and crew. RCL's Outbreak Prevention Plan uses a comprehensive approach that includes screening and surveillance, sanitation, supplies, isolation and treatment, guest and crew education, communication with shoreside health authorities at all levels, and debarkation of patients where necessary and appropriate.

During 2009, H1N1 presented an unusual and difficult challenge for the world, and RCL was no exception. The challenge was complicated by the limited understanding of the virus and the ever-evolving national and international guidance and recommended responses. RCL focused on H1N1 quickly after it was identified in the medical community. We developed and adjusted policies to meet the varying concerns and requirements of the many nations where our ships call. As an important part of this process, RCL's medical experts personally visited many of our destinations to meet with local experts and to explain the extensive provisions in practice on RCL ships. This led to some very valuable and important partnerships, as well as the sharing of best practices across the globe.

Our H1N1 policies were adapted in a manner that allowed them to be updated easily as new information became available, while maintaining our commitment to the safety of our guests and crew. The measures we adopted not only helped reduce the risk of H1N1 onboard our ships, they also had the added benefit of helping us manage other influenza-like illnesses.

Our strategy included the introduction of a comprehensive pre-embarkation health screening questionnaire that all guests and crew are required to complete, in writing, before being permitted to board any of our ships throughout the world. The questionnaire asks about both seasonal and H1N1 influenza, as well as about whether the guest or crew member has experienced any gastrointestinal symptoms within one to two days prior to boarding.

Onboard, our ships maintain active surveillance for indications of onboard illnesses through use of the company's electronic reporting system. In this way, whenever an unusual number of illnesses (including gastrointestinal and/or respiratory) are identified, the ship can quickly recognize this development and respond with an increase in cleaning and sanitizing throughout the ship. Such quick action can help stop the spread of illness. Our enhanced sanitation also includes the use of electrostatic sprayers to

### The RCL Paradigm for response to influenza-like illness such as H1N1.

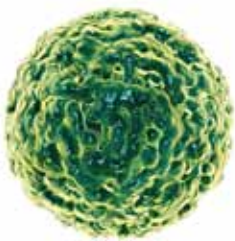
- Screening
- Surveillance
- Sanitation
- Communication
- Isolation
- Treatment
- Appropriate Disembarkation
- Transparency with Local Authorities



quickly apply disinfecting agents to all surfaces, helping to stop the spread of germs and resulting illness.

We also involve our guests and crew in our efforts to curtail the spread of viruses. Everyone is regularly reminded of the importance of proper hand washing and cough and sneeze etiquette through the ship's internal television network, shipboard newsletters and stateroom letters to guests. To help guests clean their hands often, our ships deploy hand sanitizer dispensers in convenient locations. This is a valuable supplement to soap and water washing.

Each of our ships is also prepared to treat guests who may become ill with seasonal or H1N1 influenza. For example, they are well supplied with the antiviral medication Tamiflu, which the CDC has recommended for treatment of viral respiratory infections in select circumstances. In the event further treatment is needed ashore, the guest or crew member will be debarked to an appropriate shoreside medical facility as soon as possible.



Norovirus is responsible for 90 percent of epidemic non-bacterial outbreaks of gastroenteritis around the world. This virus, when brought onboard by one or more of our guests or crew, can easily be spread to other guests and crew either through public vomiting or failure to wash hands after using the toilet.

Norovirus, which is ubiquitous in the environment and commonly causes outbreaks in schools, hospitals, nursing homes, dormitories and other public facilities, is the usual culprit in cases of gastrointestinal illness on ships. This virus, when brought onboard by one or more of our guests or crew, can easily be spread to other guests and crew either through public vomiting or failure to wash hands after using the toilet. We have numerous policies and plans in place to identify cases, prevent spread through sanitation, and mitigate outbreaks should they occur. We encourage early reporting by guests and crew.

## HOW DOES RCL MAINTAIN THE CLEANLINESS OF ITS SHIPBOARD WATER SYSTEMS?

The purity and cleanliness of all shipboard water systems is one of our highest priorities. This includes our potable (drinking) water, as well as what we refer to as recreational water (for swimming pools, whirlpools and spa pools). The potable water on our ships is produced through either reverse osmosis of sea water or through evaporator water systems. Water may also be taken onboard (bunkering) while the ship is in a port-of-call. As a precaution, all bunkered water is first tested, and then held for 24 hours pending those test results, before being approved for release for shipboard consumption.

CDC/VSP standards require the testing of shipboard water systems for coliforms four times per month. RCL policy goes *Above and Beyond Compliance* with this requirement by mandating such testing of our potable water systems more than 15 times as frequently. Although it is not required by CDC/VSP, we also test all shipboard potable water and recreational water twice per year for the presence of Legionella as a precaution.

All shipboard whirlpools are filled with clean potable water that is chlorinated and regulated to the pH level recommended by the CDC's VSP regulations. These levels are maintained through regular automated and/or manual monitoring. Whirlpools are usually drained, superchlorinated, sanitized and refilled on a daily basis. RCL has also implemented twice-yearly biofilm treatment for the whirlpool systems on all ships, as an added measure to maintain the cleanliness of our shipboard whirlpools at the highest possible level.

Training and certifications are an important part of any system – and recreational water systems are no exception. The Certified Pool Operator (CPO) certification and in-house

## POINT OF VIEW

*"...we were particularly impressed with the cleanliness of engine rooms/facilities..."*

– Professor Christopher L Bartlett,  
MSc, MB BS, FRCP, FRCPATH, FFPH

training for Ship's Pool Technician (SPT) are required for all shipboard recreational water facility operators throughout the fleet.

## DOES RCL STAY ON THE CUTTING EDGE OF MEDICAL TECHNOLOGY?

At RCL, we are constantly looking for new technologies and practices that can help us stay on the cutting edge of ever-advancing medical technology and continue to improve and enhance our shipboard medical facilities and services for both guests and crew. For example, during 2010, RCL will be initiating a strategy for diagnosing crew dermatology cases that takes advantage of the new, emerging field of TeleDermatology. In this initiative, our shipboard physician takes high resolution digital photographs of a patient's skin disorder. These photos are then transferred via high speed internet directly to shore-based medical dermatology professionals. A virtual medical consultation then takes place via the web and results in high-quality medical diagnoses and treatment plans. This technique has only become possible through advancements in digital photography and will not only improve care, it will also minimize the time it takes to see a specialist, reduce associated travel time and expenses and reduce downtime away from the ship.

Another recent technological advancement was in the area of compact ventilators. Through careful evaluation, we were able to select sophisticated ventilation equipment that can be updated and maintained via the internet and is small enough to accompany an evacuated patient on a helicopter. These devices were initially developed for military use and just received regulatory approval this past year. They have now been deployed to each of our ships.

We have also distributed new laboratory equipment to our fleet that enables the medical staff to perform multiple tests with a higher degree of quality control in a shorter period of time. The unit is compact and can more easily be exchanged in the event maintenance is needed.

## IF A GUEST OR CREWMEMBER MUST DEBARK THE SHIP IN A PORT OF CALL DUE TO A MEDICAL EMERGENCY, WILL THERE BE SOMEONE TO ASSIST?

In the event a guest or crew member must debark the ship due to a medical or other emergency, RCL is available to assist and support in a variety of ways. In 2006, we established a dedicated CareTeam of trained specialists available to provide compassionate and logistical support in the event a guest experiences a personal emergency while sailing with us. Whether a family tragedy at home, an illness or emergency onboard, or an incident while ashore, our CareTeam is capable of arranging logistics or compassionate professional assistance, and provides a coordination point for communication between RCL and our guest, their family members and traveling companions. We have now extended the CareTeam services and support to our crew members. For further information about CareTeam, see the CareTeam section of this report.



*On-board screening digital x-ray*



*Brilliance of the Seas*



*Celebrity Constellation*

# CARETEAM OVERVIEW



*Celebrity Infinity*



*Mariner of the Seas*

In 2006, Royal Caribbean Cruises Ltd. (RCL) established a dedicated team of trained specialists to provide professional logistical support and reassurance in the event one of our guests experiences a personal emergency while sailing with us. This group, known as the CareTeam, is available 24 hours a day, seven days a week, to provide support during a family tragedy at home, an illness or emergency onboard, or an incident while ashore. The CareTeam, which is based at our headquarters in Miami, also provides a much-needed coordination point for communication between RCL and the affected guest, their family members and traveling companions. RCL has extended the resources and skills of the CareTeam to similarly affected crew members.

We fully understand that should a personal tragedy or emergency arise during a cruise, the affected guest or crew member will need to devote 100 percent of their time to focusing on their own needs. Far from home and away from family, persons in need can benefit from trained professionals who have the experience and resources necessary to provide compassionate logistical support. In such cases, there can be an overwhelming need for a caring and understanding person to help; a person who knows what to do and how to do it, speaks the language and is ready to step forward at the right moment.

CareTeam members are compassionate and dedicated individuals who have received specialized training and certification from the United States National Transportation Safety Board, the respected Family Assistance Foundation and AVIEM International.



## WHAT TYPES OF ASSISTANCE AND SERVICES CAN THE CARETEAM PROVIDE?

The CareTeam can help the affected guest or crew member with a wide range of services and support, including:

- **Local hotel accommodations:** Finding and arranging hotel accommodations in a distant land can be a challenge even under the best of circumstances. Our CareTeam is familiar with our many ports of call and, together with our ground support agents, can usually make arrangements for overnight needs at a moment's notice. At RCL, we are in the business of attending to the needs of our guests and crew in the best of times, as well as those occasions when a helping hand may be just what is needed.
- **Local ground transportation:** The CareTeam can also help arrange local ground transportation if it is needed.
- **Contacting traveler's insurance carriers:** Navigating through the maze of health insurance forms and travel assist companies can challenge even the most seasoned of travelers. During a personal emergency, one can quickly become overwhelmed with all the details. Our CareTeam is accustomed to working with such organizations and can help make the necessary contacts and notifications on a timely basis.
- **Contacting citizen's embassy/consulate:** Our CareTeam has contact names and phone numbers for local embassies and consulates and can help make the necessary connections.
- **Arranging flights home:** Our in-house team of travel professionals is ready to assist with flight arrangements to get affected travelers or crew members to their destination as quickly as possible.
- **Arranging flights for family/friends to port/ship:** In the event of a personal crisis, a familiar face can oftentimes make all the difference in the world. In some circumstances, our guests or crew members may require assistance with flight arrangements for family who may be needed to personally assist them, their friends, family or travel companions on their way home. Our CareTeam is ready, willing and able to assist with these needs as well.
- **Arranging conference calls to/from ship for guests/family:** Oftentimes, a simple call home to relatives and friends is just what is needed to make the best of an unfortunate situation. Our CareTeam can make the necessary arrangements to quickly put guests or crew members in touch with family and friends through our shipboard telecommunications system.
- **Arranging religious/clergy/onboard counseling for guests, crew and family/traveling companions:** In times of personal tragedy, religious support or counseling may be important. A trained, caring and compassionate CareTeam member can make this type of arrangement – either by placing guests or crew members in contact with their personal clergy back home, or by arranging for a consultation with local clergy in a foreign port of call. We also have access to several highly professional counselors experienced in working with guests and crew by telephone onboard ships or in ports. Counseling recommendations upon returning home can also be arranged.
- **Arranging port agent services – translations, travel escorts, local services:** RCL has a dedicated port agent in each of its approximately 400 ports of call worldwide. These agents reside in the community and are familiar with

### Family Assistance Foundation

The Family Assistance Foundation, Inc. is an independent nonprofit support organization founded in 2000 for the purpose of training those in front-line positions who will be called upon to provide assistance and support to others in their time of need following a transportation-related tragedy.

The Family Assistance Foundation's mission is to both support and improve industry response to emergencies and disasters – whenever and wherever they occur. The Foundation takes a unique, research-based approach to helping organizations, such as RCL, in most effectively meeting the personal needs of guests, crew, their families and companions during the acute phase of a crisis and beyond.

Experience has demonstrated that the best way to be prepared for an unforeseen event is through professional training and drills that enable a company to expect, and prepare for, the unexpected. The Family Assistance Foundation's education and training programs provide those very skills necessary to be ready to assist our guests and crew when the need arises.



*Azamara Journey*

## POINT OF VIEW

*"All I remember was her compassion. Cindy was so compassionate when I talked to her that first time. She gave me her sincere condolences and (asked) if there was anything she could do to help us."* This is a quote from a woman, whose mother died on a RCL ship, who was assisted by an employee representing the Careteam. This quote echoes the sentiment of family members who are assisted by cruise line employees who are trained to care for them during tragic times. And many people who are helped by the caring cruise line staff while on a ship have said it this way. *"They were my family."* These were the words of a man whose wife of forty years died while on vacation on a Celebrity ship, as he remembered the employees who assisted him.

– Carolyn Coarsey, Ph.D.  
Family Assistance Foundation

local available support services and how to make needed arrangements. Our agents speak English, and, together with the CareTeam specialists, can help ensure that needs are met, regardless of the location.

- **Arranging for luggage to be shipped home:** Missing luggage can be a frustrating experience during any travel, but especially so when a personal tragedy is involved. In such situations, our CareTeam will assist in working with airlines, travel insurers and transportation companies to help track down missing luggage.
- **Family escort to accompany guest/family/traveling companion:** If a personal tragedy should arise under circumstances where family, friends or companions may be unavailable to assist, a CareTeam specialist can help arrange for someone to accompany the guest or crew member back home when necessary.
- **Arranging air ambulance services:** Under certain circumstances, a patient's medical or treatment needs may exceed what is available either onboard the ship or even in a particular port of call. In such cases, it may be necessary to arrange for a private emergency air charter ambulance to airlift the patient to a location that can provide additional medical treatment and support. RCL encourages all guests to purchase travel insurance that would cover such needs. RCL has a travel insurance partner that can help with any travel insurance needs. Our CareTeam is ready to assist in working with any travel insurer to help with emergency air ambulance arrangements if necessary, or to assist guests in arranging for privately funded air ambulance transportation needs.
- **Arranging repatriation of remains:** Another benefit of travel insurance is repatriation of remains coverage. In a medical emergency resulting in death, the costs and logistics of preparing and returning the deceased's remains to their home country can be a large, additional burden and expense to relatives or friends. The CareTeam is available to work with insurers to help in this area if needed.
- **24-hour telephone support:** Though our ships travel throughout the world, a CareTeam Specialist is always only a phone call away.

## WHAT ARE SOME EXAMPLES OF SITUATIONS WHERE THE CARETEAM HAS ASSISTED GUESTS IN A TIME OF NEED?

Since its inception, our CareTeam has compassionately assisted many guests and crew members in their time of need. A representative sample of examples includes:

- In March 2006, a number of our guests were involved in a tragic bus accident while participating in an independent tour activity near the remote town of Arica, Chile. In response, the CareTeam helped coordinate our corporate response. Support activities included the dispatch of a shipboard medical team, deployment of a response team from corporate headquarters in Miami, notifying and communicating with the guests' family members back home, and assisting family members' travel to Chile.
- In January 2008, a retired couple from West Palm Beach, Florida, were enjoying their cruise off the coast of Argentina, South America, when, tragically, the family patriarch developed a life-threatening medical condition. He was evacuated to a shoreside medical facility for emergency care. Given the seriousness of the situation, the CareTeam immediately contacted the couple's daughter, and arranged to escort her to Argentina. Very tragically, our guest



*Rhapsody of the Seas*

passed away shortly before he could be reunited with his daughter. During the ensuing days, the CareTeam provided emotional and logistical support and arranged for grief counseling. They also assisted with repatriation arrangements, meetings with local embassy officials and flights back to the United States. The couple's daughter had words of high praise for her CareTeam specialist, and all the assistance and support he provided. She was even so kind as to personally offer feedback and comments during subsequent Family Assistance Foundation meetings and training.

- In February 2009, 18 of our guests were involved in a tour bus accident on a small Caribbean island. The ship immediately dispatched a medical doctor and nurse to the scene to fully assess and assist the situation. A CareTeam of specialists was dispatched to the scene to provide a full array of care and support. This included helping to coordinate local logistics and preparations for prompt air ambulance evacuation. After the injured were stabilized and cleared for emergency transport by the local hospital, the CareTeam arranged for private air ambulances and escorted them to Miami's Jackson Memorial Hospital Trauma Center for further care and treatment. Arrangements were made for family members to join and remain with their loved ones during the long recovery periods in Miami. Once cleared for travel, the CareTeam also arranged for their travel home. The overall CareTeam effort involved dozens of people providing support over a period of weeks of recuperation. Amazing personal relationships were formed between many involved.
- In March 2009, one of our guests sustained a hip fracture as a result of a fall. After being medically stabilized onboard the ship, the guest was transferred to a local shoreside hospital and subsequently air evacuated to her home town. Our CareTeam assisted every step of the way by helping with travel insurers, providing a point of contact between our guest and family members back home, and keeping all parties informed of developments/progress. After a successful surgery, convalescence and recovery, our guest and her daughter wrote to thank our CareTeam specialist for the many kindnesses extended at every step of the way. They characterized the CareTeam specialist as "...one in a million"—and we couldn't agree more.

## DOES ONBOARD STAFF HELP THE CARETEAM IN SUPPORTING GUESTS AND CREW WHO ARE IN NEED?

RCL's crew responds quickly when a guest or crew member encounters a personal emergency. In addition to incident response procedures, CareTeam efforts are augmented by one or more members of the crew, depending on the need and circumstances. This has been a practice since early 2007 and continues today.

In 2010, the CareTeam will formalize this shipboard support. In this initiative, we are building on our CareTeam's effectiveness by formally selecting and training onboard personnel to perform as CareTeam Associates. On every ship, a number of personnel, male and female, will receive formal training through a program developed in conjunction with the Family Assistance Foundation. The result will be trained officer-level CareTeam Associates who can quickly interact on a face-to-face basis with guests or crew members in need of support. We are very excited about the expansion of our CareTeam services as we continue to strive to meet the needs of our guests and crew.

### RCL Recommends Travel Insurance

Royal Caribbean Cruises Ltd. offers CruiseCare® Travel Insurance, including medical, baggage and evacuation coverages to protect you during your covered Trip.

With the Cruise Care® cancellation penalty waiver, if your plans go awry and you cancel - or interrupt - your cruise vacation (for specified reasons), Royal Caribbean International and Celebrity Cruises will waive the non-refundable cancellation provision of your cruise ticket contract and pay you in cash the value of the unused portion of your prepaid cruise vacation.

Cruise Care® Travel Insurance provides cancellation and interruption protection for independently reserved air, as well as coverages to protect you during your covered trip, including:

- Trip Cancellation for Independently Booked Air
- Trip Delay
- Baggage Protection
- Medical Expenses
- Emergency Evacuation

Cruise Care® Worldwide Emergency assistance provides 24 hour assistance services, including pre-trip health, safety and weather information; assistance with travel changes; lost luggage assistance; emergency cash transfer assistance; and emergency medical payment assistance. (Detailed information is available on our websites under Cruise Vacation Protection).



## A DAY IN THE LIFE OF A CARETEAM SPECIALIST

- 8:30 AM:** Arrived at the office in Miami and assisted guest who missed the ship in Cozumel, Mexico. Assisted with booking of travel arrangements to ship's next port of call.
- 9:00 AM:** Coordinated with a guest's travel insurer to assist the onboard guest in returning home due to a death in the family.
- 9:30 AM:** Conference call with an onboard guest and RCL's local agent in Grand Cayman to arrange an appointment to address a dental emergency (tooth abscess).
- 10:00 AM:** Spoke with a guest onboard for whom the ship's doctor has scheduled a medical debark to a hospital in St. Maarten. Arranged contact with the guest's daughter (emergency contact) back home.
- 10:30 AM:** Arranged accompaniment home for an ill crewmember from Dubai, United Arab Emirates, to the Philippines.
- 11:00 AM:** Assisted an onboard guest who wishes to debark due to the death of a family member back home. Assisted with arrangements through the local port agent, travel insurer, airline and grief counselor.
- 1:00 PM:** Followed up with guests who debarked a ship due to a medical emergency involving injury. Continued communication confirmed the guests were safely back home.
- 2:00 PM:** Coordinated travel arrangements for the family of an elderly shipboard guest who wished to travel from their home to a hospital in St. Thomas to accompany their family member guest back home.
- 3-5:00 PM:** Arranged for grief counseling of a crewmember faced with the death of a close family member back home in Japan. Also arranged for a flight home for funeral and bereavement period.







*Dubrovnik, Croatia*



An aerial photograph of a coastal town built on a cliffside overlooking the sea. The town features numerous buildings with red-tiled roofs and is surrounded by lush greenery. The sea is a deep blue, and the sky is clear and light blue. The town is built on a steep slope, with buildings clustered together. The sea is visible in the foreground and middle ground, with a few small boats. The sky is a pale, clear blue. The overall scene is a beautiful coastal landscape.

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