The National Security Cutter:

Enduring Presence for Core Missions

THE FUTURE OF THE USCG

The National Security Cutter: Enduring Presence for Core Missions

THE NATIONAL SECURITY CUTTER OPPORTUNITY

08/02/2011 *Second Line of Defense* sat down with Admiral Currier, the Deputy Commandant (Mission Support) of the USCG, to discuss the importance of the new National Security Cutter in executing the national maritime strategy. The NSC provides a focal point for deployed defense and security capabilities afloat and a key asset in protecting US national sovereignty in a globalizing world.

In effect, the NSC provides a floating command post for a security or defense task force sized to deal with various threats, ranging from narcotics interdiction to terrorist threats. The NSC forms a focal point for organizing assets appropriate to a variety of missions in the global commons and the maritime zones which reach deep back into the inland waterways of the continental United States.....

SLD: After some early challenges with the NSC, which are certainly not unusual with first build ships or planes or helos, it seems that the ship is shaking out quite nicely.

And because you have only been operating the ship for a couple of years, the service obviously is just learning to leverage its capabilities.

Could you give us your sense of where we are with the building of the ship?

Admiral Currier: The National Security Cutter, in my estimation, is an extremely capable ship that meets vital national requirements for maritime security. After some early challenges in program structure and process, the acquisition has matured into a cost-controlled and risk managed program.

During this fiscal year, we contracted Hull#4 for a fixed price. Additionally, in FY11 we also contracted for long lead-time material for #5, and we're about to award the production contract for #5. I am confident that the contract for #5 will come in at, or very close to the cost of Hull #4.

SLD: What was that cost?

Admiral Currier: The unit cost for #4 was 480 million dollars with a total acquisition cost of 692 million dollars.

SLD: What was the difference between the two numbers?

Admiral Currier: The smaller number is the unit cost for the ship, while the larger is a combination of the unit cost, plus long lead time material, post production certifications, personnel costs, training expenses and all other associated costs.

We have achieved a fixed price environment with stable requirements, and a contractor that has a positive learning curve which is productive because we're awarding contracts on a regular cycle.

The problem is the real possibility that our funding might be disrupted. This would mean that as we seek to acquire hulls #6, 7, and 8, if we are exposed to funding delays, we're going to incur significant cost increases, loss of expertise in the yard due to gapped work stoppages, people laid off, all of those negative effects.

SLD: You also face some challenges in managing a steady funding stream due to some specific procurement regulations as well, for which the USCG is seeking regulatory relief?

Admiral Currier: You are referring to OMB Circular A-11. Current interpretation of A-11 requires that when acquiring a system, you must have total contract funding in the year that the contract is signed. In other words, in the year you buy it, you have to have total funding.

The problem is that in shipbuilding each hull requires multiple years to complete. To be efficient you need to manage over a period significantly longer than a year. You need long-lead material in a year, and then you need the production contract the next year, and then you need money for post-production activities the third year. It takes about 3 fiscal years to do it efficiently which can cause money allocated the first year to expire before it is expended.

In this sense, we would like parity with the Navy. As we have restructured our acquisition enterprise, we have drawn on many of the lessons of how NAVSEA does contracting. To achieve what their procurement models yield, we must have parity in policy application.

When the Navy buys a ship, whether it be a carrier, or a submarine, or even a frigate they obtain relief on A-11 interpretation. They are allowed to apply multi-year funding through either appropriations, or authorization language.

Early on in our shipbuilding program, we were given relief from A-11. Today, we are not which makes efficient acquisition very difficult.

SLD: Let us discuss the NSC itself. How does the USCG use this ship and plan to use the entire fleet of NSCs?

Admiral Currier: We have a legitimate requirement for persistent presence off the Atlantic Coast, Pacific Coast, Bering Sea, the Eastern Pacific and the Caribbean for the interdiction of migrants, narco-terrorism and the insurance of safety and security at sea.

In the past, our formula has been 12 major cutters at 185 days a year away from homeport. And that's based on over 40 years of operation with the 378-foot high endurance cutter.

Currently, we are looking to replace those twelve antiquated high endurance cutters with a minimum of 8 National Security Cutters. Given a unique manning concept called crew rotation, we have modeled the ability to do 230 days a year at sea, rather than 185, which we did with the previous class of high endurance cutters. In effect, the days at sea, or the days engaged in mission execution, will be roughly the same between the National Security Cutter with 8 hulls and the Hamilton class with 12 hulls.

But it's even better because of the enhanced capabilities of the National Security Cutter. The ship can loiter, sprint, carry aircraft, and deploy small armed interdiction boats. Eventually it will carry unmanned aerial vehicles. Currently, the NSC can process intel-

ligence information operating as a deployed system, not just a hull yielding so many days at sea.

It's a much more capable platform than anything we've had in the past. Even though our top-line metric is days away from homeport, the effectiveness of the platform in-theater will be an order of magnitude greater. And that's been proven in deployment of the first two ships.

SLD: Let us hover over the important distinction between the NSC as a hull and the NSC as a deployed security or defense system. Can you explain how we should understand the NSC in a systems way?

Admiral Currier: The National Security Cutter, in addition to being able to operate at high sea states, can launch and recover aircraft under those conditions. You have to understand the cutter's utility as a weapon system.

It's a platform for multiple, fast, small interceptor boats, surface craft, and also air assets, whether it be a helicopter, or unmanned aerial vehicle, which really extends the reach of the cutter significantly. We have a larger capacity for the small, fast boats, the interceptor boats. We can carry three vice one or two on a 378. The NSC is a sea base for fast response small boats and helicopters or virtually any specialized force for dealing with a wide spectrum of threats.

We've proven this concept repeatedly with interdiction of narcotic go-fasts in the Caribbean and Eastern Pacific. With a Maritime Patrol Aircraft (MPA), or with the use of non-USCG national assets, the ship is able to detect, monitor, and be in position to launch its helicopters which will stop the suspect vessel, followed by the small boat boarding team.

It is a complete package. It capitalizes on external cues, intelligence, and airborne maritime patrols to develop a picture of the area. With the available maritime domain awareness, it can prosecute threats using its fast, armed, small boats, and its armed helicopters.

SLD: So it really should be looked at as a floating command post able to deploy small task forces to deal with various maritime threats, including threats landside as well?

Admiral Currier: It is a multi-mission system. What I've just described to you is the detection, monitoring and interdiction of a surface or subsurface suspect vessel, a narco-terrorist threat.

But the NSC has additional utility in that this ship is a protected asset as well. It can operate in a contaminated environment, whether it is chemical, bio, or nuke. It can go into an incident area as a completely protected, self-contained command and control platform to support at sea or land operations as well.

And due to the USCG's unique capability to operate with DOD in a joint task force environment, or unified commands on the civil side, the NSC can bring them together, house them, provide them communications, and translate between the two from a planning and execution standpoint.

In other words, the National Security Cutter is a unique asset for national security. It can go to the scene of a major disaster, whether it is an earthquake in San Francisco, or a WMD attack in the New York City area and be able to provide the responders with sustained and protected communication facilities capable of co-joining unified commands with DoD JTF's.

SLD: The ship has very good endurance qualities. Can you explain the impact of endurance with regard to the NSCs ability to play the various roles you have discussed?

Admiral Currier: Think about it this way. In the Eastern Pacific narco-terrorist hunting grounds, in our deep Caribbean illegal migrant missions, in our demanding Bering Sea fishing enforcement, or in our Western Pacific economic zone protection missions, it takes significant time to transit to those operational areas. The value of endurance is based on the ability to stay on station longer, rather than just racking up transit days. So the NSC gets more efficient operational use from its days away from homeport.

Measure its role in days engaged in-theater, because from Alameda it's a week-long transit to the Bering Sea. It's a 10 day transit to the Western Pacific. It's a 5 day transit to the Eastern Pacific, and then the return. Those are days off the top of a patrol; success requires maximizing time in the target operational area.

What you want is a ship that offers extended time, is self-contained, self-supported and in theater performing the mission. The loiter capability allows us to go into theater and wait, maintain a low profile, and either get cued by intelligence, or MPA, or your own eyes and ears, establish where the target is, and then go after it.

Loitering in the Bering Sea protecting the international maritime boundary dealing with foreign incursions, you are effective through presence. And that's what comes from the endurance qualities of this ship.

SLD: A key aspect to understanding the role of the NSC might be to go backwards and discuss the different strategic contexts within which ships have been built to perform USCG missions.

Could you talk about the relationship between earlier cutters and strategic contexts?

Admiral Currier: In the 1930s, we built the Secretary Class 327 foot-long ships. They were built for security and interdiction. They were used for ocean station duty. They were positioned across the Atlantic and Pacific so the airliners, which were very primitive at the time, could get position fixes and weather from the ships as they transited across.

SLD: They were floating lighthouses and rescue stations?

Admiral Currier: Yes, but then they adapted to new conditions and mission demands. We entered into World War II, the United States scrambled for capability to escort convoys across the U-boat threatened North Atlantic. And because we had built these ships as multi-mission vessels, they were able to be weaponized with surface and anti-air guns, depth charges and sonar (or ASDIC as it was called) and they became, early in World War II, the most effective assets the United States had for anti-submarine warfare.

And then we industrialized and our Navy built destroyers. But the USCG cutters were very efficient destroyer escorts early in the war. An important lesson here is having a multi-mission ship allows you to adapt it to changing national priorities. We are, and will remain, a maritime Nation depended on the sea for our survival.

After the war, the cutters were transitioned back to an ocean station role. Later, they went to Vietnam, got gunned up again, and participated in Market Time.

In short, the nature of the changing security problems that the United States faces demands a ship that's multi-mission; today the NSC is that ship. This is a ship that can handle narco trafficking, sea-borne terrorist threats, it can handle mass migration incidents, and it can handle natural or a man-made disasters along our coast line. And it can meet threats at sea because it has loitering and speed capabilites, and the ability to carry specialized forces. The NSC can focus on keeping the threat away from our shores rather than simply coping with the impact of a threat already inside U.S. waters.

SLD: What about the Hamilton Class Cutters, and we would note that the Philippines have just taken delivery of the original Alexander Hamilton thus setting in motion the sunset on this capability.

Admiral Currier: The 378s were built 45 years ago, and the same thing happened, the ships served us well in Vietnam, then through the Cold War when submarines were a huge threat, then during the marijuana and cocaine smuggling wars, through the Mariel Boatlift in 1980, the rescue of over 500 souls from the liner Prinsendam off Alaska, countless tons of narcotics and countless lives saved, often under impossible conditions…this represents concrete return on investment, unmatched anywhere.

We've morphed as the nature of threats to the Nation have changed, and the new NSC will allow us to do this over the next 40 years.

But the Hamilton class was never designed to be a floating command post for combined security and defense operations. And such an asset is crucial in managing and executing the combined and joint missions necessary to achieve national security. The NSC represents a significant investment of taxpayer's dollars in a very difficult economic pe-

riod. But, as we've discussed, this is not a short term program. These ships will be vital to our Nation's maritime security for the next several decades, they represent long-term investment.

SLD: This takes us back to the focus of the NSC as a system not just a hull. One way to conceptualize this might be to look at the ship as the anchor point in a deployed bubble and within that bubble which has 360 degree sweep are various assets which can be leveraged. The commander of the NSC can then craft or shape an effective force package, using national or coalition assets. Does that make sense?

Admiral Currier: It does and gets to the system point quite well. It's a mobile security force that can move to meet a threat, or stay to meet the threat, whatever's required. It can sprint or it can loiter for a long time with the eyes and ears to protect a large swath of ocean or coastline..

But the bubble idea highlights the key role of command and control in various scenarios. In a natural disaster, it's operating a different bubble than a counter narcotics bubble, but it's the same concept.

You've got domain awareness in air and surface, you've got tools to affect the outer edges of the bubble, you've got organic intelligence capability, and you've got the ability to import critical intelligence. All of these things can go on with the NSC as a centerpiece. It's not just the ship, it is a defense management system… a threat management system.

By running this concept against different scenarios, one can grasp the flexibility of the NSC. If you run a mass migration scenario, this ship goes in as a command and control platform for operations in the Florida Straits or the approaches to the United States.

This ship will host the task force command that's able to achieve air and maritime domain awareness, with the communications capability and the support capability to exercise multi-unit command.

Changing to another scenario: an airliner goes in off of Cape Cod, how are we going to exert on scene presence command and control, awareness control over the search activities, recovery activities? This ship can do it.

If there's an earthquake in San Francisco, this ship sails under the Golden Gate, and sets up with multiple jurisdictions, including the Department of Defense, to give them a protected and self-sustained command and control node while they're commencing rescue and recovery.

In short, the NSC is part of our service ethic of operating multi-mission cutters, which allow flexibility in the execution of critical tasks. But it is different in that the NSC has the enhanced capabilities to meet the threats of today and tomorrow.

And as such, this asset can do chaos management, command a security or defense task force, provide for efficient use of US national assets, link with coalition or partner nations and enforce law.

Having a ship that can do all of this is about ensuring US sovereignty in the evolving global commons, close to home regions of vital interest to our Country including the Western Pacific, Alaskan maritime boundaries, the deep Caribbean and our Southern approaches. These are clearly times that challenge our national security. To ensure safe and secure sea lanes and all that means to our Nation, we absolutely need this uniquely capable asset.

THE USCG IN THE PACIFIC

08/09/2011 –*Second Line of Defense* sat down with the current USCG Pacific Area Commander, Vice Admiral Manson Brown in July 2011 to discuss the Admiral's perspectives on those challenges and the requisite assets he believed was necessary to meet them.

The National Security Cutter is a crucial asset for him because of its endurance and speed. To reach the areas of interest for which the USCG has responsibility, the NSC is a core and unique asset. The discussion of the Pacific Area of Operation highlights the demand side of why the NSC is so crucial to the USCG's and nation's future.

Vice Admiral Manson Brown has a varied and distinguished background. He assumed the duties of Commander, Coast Guard Pacific Area in May 2010, where he serves as the operational commander for all U.S. Coast Guard missions within the half of the world that ranges from the Rocky Mountains to the waters off the East Coast of Africa. He concurrently serves as Commander, Defense Force West and provides Coast Guard mission support to the Department of Defense and Combatant Commanders.

Vice Admiral Brown's previous commands include the 14th Coast Guard District, Maintenance and Logistics Command Pacific, Sector Honolulu, and Group Charleston. From 1999 to 2002, he served as the Military Assistant to the U.S. Secretary of Transportation, including duty as the Acting Deputy Chief of Staff for six months after the terrorist attacks of September 11, 2001. In May 2003, he served as the Chief of Officer Personnel Management at the Coast Guard Personnel Command. From April to July 2004, he was temporarily assigned as the Senior Advisor for Transportation to the Coalition Provisional Authority in Baghdad, Iraq. Working in a combat zone, he oversaw restoration of Iraq's major transportation systems, including two major ports.

Previous tours of duty include Assistant Engineering Officer aboard the icebreaker GLACIER, Project Engineer at Civil Engineering Unit Miami, Deputy Group Commander at Group Mayport, FL, Engineering Assignment Officer in the Officer Personnel Division at Coast Guard Headquarters, Facilities Engineer at Support Center Alameda, and Assistant Chief, Civil Engineering Division at Maintenance and Logistics Command Pacific.

We started by discussing with the Admiral the enormity of the Pacific and its importance to the American economy.

Admiral Manson Brown: Most people don't realize that 85 percent of the US exclusive economic zones (EEZs) are in the Pacific, mostly in the Central and Western Pacific. There are a lot of economies in that region that are driven by the fishing industry.

One of the things that I realized is that even with good enforcement in US EEZ's, the fish know no boundaries. So they will shift from our EEZ's to those of other nations and potentially be overfished there.

We formed partnerships with adjoining countries who are working their EEZs to try to manage the illegal fishing beyond our EEZ. We developed a joint strategy, a ship rider program where essentially we use Coast Guard assets and put enforcement officials from six nations that have signed ship rider agreements.

The Central and Western Pacific is significant distance away from the continental US. Most people don't know that sovereign American territory is located as well in the Central and Western Pacific.

SLD: How long does it take to go from Alameda, California (the USCG HQ in the Pacific) to these territorial waters?

Admiral Manson Brown: To deploy a Cutter from here to American Samoa requires ten or more days.

SLD: So one way to understand the need for the cutters is their endurance. If it takes more than a week to go and a week to come back, endurance buys you more time on station.

Admiral Manson Brown: Correct. And the thing you have to realize in the Pacific, you don't have the infrastructure that you do in the Atlantic.

So in terms of pier space, fuel, engineering support, food and other logistics, you have to take it with you. When you're down in a place like American Samoa, you better have most of what you need to operate.

SLD: Endurance from this point is more operational time on station.

Admiral Manson Brown: We also need to be prepared as you alluded to earlier, for the weather conditions in the Pacific, which can be severe, and which can be unpredictable.

And as a former icebreaker sailor, I can tell you that the Pacific storms can whack you pretty heavily. So we need substantial ships to protect our crews, and to promote mission efficiency. And when folks are in Hawaii, they forget that the seas are rough around the islands–this is not the Caribbean.

If you go a mile and a half offshore and to do a SAR case in Hawaii with a 25 foot rigid hull inflatable, you're doing a SAR case in the middle of the Pacific Ocean.

People think of Hawaii like they think of Florida with the protection of the land mass, but there is no protection out there. So we need more substantial capability to deal with Mother Nature. You will be operating in seas that will scare you.

SLD: What is the impact of these EEZ's economically?

Admiral Manson Brown: These areas are some of the richest tuna fisheries on the planet. Number one, we'll see a collapse of our fisheries if we don't protect these regions, which will affect the fishing economies in that region. Number two, it will affect the fisheries throughout the adjacent regions. There are 22 small nations of Oceania whose economies are driven by fishing licenses, and fish. If those fisheries collapse, we could potentially see Somalia-like instability conditions closer to our sovereign territory.

SLD: The cutters are crucial to such presence and effectiveness. If you physically are not there, and see one of things I think is also important to understand, the ship is the presence. You can have all the ISR you want, but that's not a good deterrent to anybody. And it doesn't allow you to prosecute.

Admiral Manson Brown: Yes, indeed. And it's presence, in a competitive sense, because if we are not there, someone else will be there, whether it's the illegal fishers or whether it's Chinese influence in the region. We need to be very concerned about the balance of power in the neighborhood.

If you take a look at some of the other players that are operating in the neighborhood there is clearly an active power game going on.

SLD: Basically, not being there is its own message, so to speak?

Admiral Manson Brown: That's exactly right. When I was in Tonga, I observed large structures built by the Chinese government and am watching others nations expand their influence around the world.

But there is another important reason that we should be there. It's another aspect of national security. If you take a look at the march of terrorism through places such as Indonesia, it's not too difficult to craft an instability scenario where it could leap to Oceania, allowing our enemy to potentially get closer to reach out and touch us.

I remind people that even though American Samoa is a U.S. territory, once you get to American Samoa, you're in America. It's not too difficult to reach out and touch us from there.

SLD: Earlier we spoke with Admiral Day about the North Pacific Coast Guard Forum. You are the US representative to that forum, could you discuss this Forum and how it reflects Pacific developments?

Admiral Manson Brown: As I reflect on the history of the North Pacific Coast Guard Forum, one should remember it was a US Coast Guard influenced effort. The forum really allows us to establish the US Coast Guard as the honest broker for protection of fisheries in the high seas drift net area of the Northern Pacific Ocean.

Our collaboration attracts the interest of China, Russia, Japan, Korea, and Canada, our partners in the North Pacific Coast Guard Forum, so that we can hold each other accountable for each of our fishing fleets that are operating in the area, as well as collaborate on enforcement efforts

I think if you extracted the presence of the US, and the US Coast Guard, instability would result. We are the, really the glue that holds that forum together.

I've been now to about three different forum meetings in one form or another, and it is not an understatement that we really play a crucial leadership role. This is due to the respect that we garner from those other nations, and because of the capability that we bring to the table.

SLD: Could you discuss the capabilities, which the USCG brings to a region that is crucial to the security-defense engagement of the United States?

Admiral Manson Brown: There are actually three capabilities that we bring to the table that separate us from DOD. Number one is the regulatory capability. The second one is the law enforcement capability, and the third one is the emergency response capability.

And that really gets to our multi-mission nature. Even though we may out there, we are conducting combined operations with Canada, Korea, Japan, China. We're also there just in case something goes wrong so that we can intercept the problem and be on scene, and provide the search and rescue capability.

With the vast distances, which we refer to as the tyranny of distance out here, if you don't have enduring presence, which cutters bring, then you're not going to get to where you may be needed in an emergency in time, particularly in a place like the Bering Sea.

SLD: Forward deployed so to speak?

Admiral Manson Brown: Forward deployed. Operations in the Bering Sea allow us to have a positioned emergency response asset, whether it's search and rescue or pollution response. There is no significant logistics support up there to enable rapid deployment. Air only gets you so far. You need an emergency surface asset to pull it all together.

SLD: So you need to be pre-positioned to be even able to do a number of these missions?

Admiral Manson Brown: That's correct. And this is part of our layered strategy. Many people believe that we need to be a coastal coast guard, focused on the ports, waterways, and coastal environment.

But the reality is that because our national interests extend well beyond our shore, whether it's our vessels, or our mariners, or our possessions and our territories, we need to have presence well beyond our shores to influence good outcomes.

As the Pacific Area Commander, I'm also the USCG Pacific Fleet Commander. That's a powerful synergy. I'm responsible for the close-in game, and I'm responsible for the away game. Now the away game has some tangible authorities and capabilities, such as fisheries enforcement and search and rescue presence.

But it's also got some softer type of capability. We do a lot of nation building. We perform a lot of theater security cooperation for PACOM. We'll send ships over to Japan. We've got ships going over to China just to exchange ideas, and discuss common objectives and capabilities, and demonstrate American engagement in the region.

As I travel around, I realize that the USCG is respected internationally because of our law enforcement and regulatory capabilities and our history. When people see our response to Katrina, or to Deep Water Horizon, they want a piece of us.

SLD: And because you're a security and defense entity that allows you to have a larger dialogue than simply a pure military force?

Admiral Manson Brown: It comes down to common interests. The common interests are those for maritime safety, security, and stewardship.

Other nations understand that we're also a military service, and we play that security defense interface, but that's not how the conversation starts. They're interested in protecting their shores, protecting their shipping, protecting the ports, and waterways, and protecting the environment.

SLD: The role of the USCG as a Title X or defense agency is crucial to the effectiveness of the USCG role here in the Pacific as well?

Admiral Manson Brown: Part of our framework of respect and credibility is the fact that we wear this uniform. People are intrigued in the international community by us. Our unique military and law enforcement character, combined with this uniform, makes it work for us. If I had gone to Beijing in a suit, I would've had a very different reaction.

When I was in Iraq in 2004 working for Ambassador Bremer, it was a civilian position. But I took along my Coast Guard uniforms; and it didn't take too many days for me to

figure out that I better wear the uniform because it's a symbol that commands respect within the international community. That's something that cannot be lost in the discussion about the future of the USCG and its role in the Pacific.

SLD: Let us turn finally to the question of the Arctic and dealing with the challenges there.

Admiral Manson Brown**:** I think the Arctic presents a series of predictable surprises to us. One of the things that keeps me up at night is that one of the cruise ships, adventurer cruise ships with say 1000 people onboard, are going to go up and dip their nose into the Bering Sea and have a mishap.

And we will not be present to craft a response,and we do not currently have the infrastructure to help those in distress.

If you take a look at all of the trend lines, the Russians are engaged in the Arctic, and even the Chinese are building an icebreaker. There is more and more human activity in the Arctic because of more and more water being open.

The challenge the Coast Guard has is once the ice becomes water, we have the authority, but we don't have the capability.

And I will tell you, we don't have the infrastructure to do the job. It's not just a Coast Guard's problem; it's a national problem.

If you take a look at what Canada is doing to build infrastructure in anticipation of an opening Arctic, we're at least ten years behind them. If you take a look at Russia and what they're doing, they at least have a plan.

I think we have a lot of catching up to do.

There's another component to this that I think we better be attentive to, and that's the resource component. When it gets to the law of the sea and the plotting of territory up there for resource exploitation, if we're not careful, we're going to have our backyard picked, and we won't be able to do anything about it because we won't have the investment or the infrastructure to support an Arctic engagement.

SLD: The world is not waiting while the US shapes Arctic capability.

Admiral Manson Brown: That is true. We need a mix of capability. We need to re-enforce our icebreaker fleet now and to then make sure that we have a ship building strategy that allows us to have ships with hardened hulls and other unique capabilities that allow them to operate in areas with ice that could play that role.

What is also crucial is keep the Arctic operational skills alive during any transition. It takes ten years because of the challenges of ice breaking to grow a good icebreaker sailor. If we let our current ice breaking fleet atrophy in this period of uncertainty, then we start at a risk position to try to grow that capability for the future.

I am all for hedging our bets by investing in what we have just to keep our hand in the game.

VICE ADMIRAL PARKER ON THE ROLE OF THE NATIONAL SECURITY CUTTERS

08/18/2011 Second Line of Defense had a chance to sit down with Vice Admiral Robert Parker, Commander USCG Atlantic Area, and USCG Defense Force East. Last month, SLD discussed the Pacific challenges with Vice Admiral Manson Brown.

One topic of conversation with both Admirals was the impact of the new national security cutter on USCG operations. Both emphasized that the NSC was more than a ship, namely a capability for controlling a significant operational area. And both echoed the perspective of Deputy Commandant for Mission Support, Vice Admiral John Currier:

The NSC is a mobile security force that can move to meet a threat, or stay to meet the threat, whatever's required. It can sprint or it can loiter for a long time with the eyes and ears to protect a large swath of ocean or coastline.

But the bubble idea highlights the key role of command and control in various scenarios. In a natural disaster, it's operating a different bubble than a counter narcotics bubble, but it's the same concept.

You've got domain awareness in air and surface, you've got tools to affect the outer edges of the bubble, you've got organic intelligence capability, and you've got the ability to import critical intelligence. All of these things can go on with the NSC as a centerpiece. It's not just the ship, it is a defense management system… a threat management system.

And Vice Admirals Parker and Manson Brown argued in a recent article:

The NSC has command-and-control capabilities former cutters did not, but they are needed when responding to critical incidents and providing for a protected homeland. A secure communications suite allows for classified communications, providing government leadership with the timely information necessary for decision-makers in a crisis.

The on-board Sensitive Compartmented Information Facility (SCIF) is integral to sharing real-time tactical and classified information-sharing with our operational partners. This is especially true when considering overseas contingency operations and how sensitive information and tasking must be transmitted, only possible via the SCIF. For example, with the anticipated drilling for oil in the near future within Cuban waters only 60 miles from U.S. soil, the NSC can assist with protecting American interests by providing a persistent presence or potential command-and-control node for a catastrophic release of oil that would impact U.S. shores far more broadly than even the 2010 Macondo 252 Deepwater Horizon oil-well spill in the Gulf of Mexico. Enforcing safety zones and patrolling off the coast of Haiti, the NSC also would provide a visual deterrent as well as a stable, persistent platform for command-and-control.

Throughout the Pacific Ocean, from American Samoa to the Bering Sea, a significant number of U.S. EEZs and National Marine Sanctuaries require monitoring and enforcement. The vast distances involved in ensuring our national sovereignty in these remote locations require the long range and endurance of the NSC. Another concern throughout the Pacific is the enforcement of the High Seas Drift Net Convention laws (the nets are the so-called "curtains of death") by detecting and interdicting vessels engaged in fisheries that are illegal, unreported, or unregulated. This supports U.S. Department of Commerce efforts to prohibit commercial ventures of such vessels, which undermine the U.S. economy.

http://www.usni.org/magazines/proceedings/2011-08/case-cutter

In the full interview, Vice Admiral Parker addressed the role of the NSC in his AOR:

SLD: You recently co-authored a piece with Vice Admiral Manson Brown on the need for the National Security Cutter. Could you address how the NSC fits into the Atlantic area strategy? Or put a different way, if you received three NSCs tomorrow, what would you do with them.

Parker: Well they'd be welcome and immediate right now. Both because we have certainly a shortage of ships because things are getting old, and we have serious sustainment issues for the current fleet. The youngest ones are over 20 years old, and that's not young.

When I give change of command speeches, I talk about what happened when these ships were built. And the cheapest gas from the newest platform when they were built

was a dollar twelve, used to put that all in perspective, which is unimaginable even back then.

But the ships are all getting old. But beyond that, the national security cutters certainly represent more than just a replacement for high endurance cutters in the USCG. It can and will have capabilities when it's finally flushed out that will create a much larger impact and effect for operations to coordinate operations, not just be a point in the ocean from which you operate, but from which actually the control pieces of the ocean on waters that we regulate.

SLD: If you had them for the Haiti events, how would you have used them?

Parker: That would have been huge. The Coast Guard of course was first in, but we couldn't sustain it. Certainly DOD brought a lot of muscle to the operation.

But if I had had the NSC right there, could have controlled the airport and the front end, could have controlled the approaches into Haiti; would have given us much, much, better situational awareness early on and would have been able to sustain there at all levels of classification for information passing in a time when there were no communications coming out of the country for the first about three days.

The USN-USMC amphibious team provided an off shore platform. When go into one of these areas where they have no infrastructure, everything you bring you got to get with you, you really don't want to add an additional on-shore the footprint to that and create problems with people who are trying to recover.

So your best place is to be somewhere else were you have all your own infrastructure, water, fuel, etc. And you can help provide that, you've got your own food, you're not a burden for somebody else concerning where am I going to sleep, how do I take care of all these things? You can provide medical services. That's what an amphibious ship did for us down there in Haiti and the NSC will give us a significant niche inside that effort.

If I'd had an NSC at the front end of Haiti, the USCG could have controlled the Air Space in there as well. They would have had a full appreciation for what was doing on in and around the littorals and you could have done a lot of command and control for all the little different parties we were putting on the beach because Coms were gone.

They were just completely out down there. Best thing I had when that happened is a J3 down in South Com was we had a cell phone that lasted about 36 hours and then it went dark.

That was kind of an awkward period there where the ship down there was the best way I had information, but what they didn't have was connectivity back to different people.

With the NSC you will have a significant bubble around the ship for C4IR D and with the bigger bubble you have a much greater ability to control things. And that is true whether that's further down range or in a place where you've stripped out communications and command and control architecture that normally exists. Whether it's a Katrina, or a Haiti, or any other calamity where you lose comms and related capabilities.

Another key piece is to understand the aviation and related assets, which you can fly off of the ship, which gives you greater range and operational capability. A ship deployed forward without a helicopter or without a Maritime patrol asset overhead, really controls only 12 mile radius of ocean. With the helo, you can get that out to about 75 miles pretty cleanly and then you put the off water horizon you're actionable area goes out to about 100 miles.

The speed and endurance of the NSC operating within a much larger C4ISR D bubble allows the USCG to increase significantly its operational area and its ability to anchor the AOR whether sea-oriented or land-oriented.

ABOARD THE USCG BERTHOLF: OPERATIONS AND CAPABILITIES OF THE NATIONAL SECURITY CUTTER

09/13/11 During the Second Line of Defense visit to USCG Island in Alameda, California, Captain John Prince and the Executive Officer of the Bertholf David Ramassini discussed their recent tour aboard the Bertholf. The conversation occurred in late July 2011 shortly after Captain Prince had relinquished command of the Bertholf to take a new post.

During this interview, Captain Prince and Commander Ramassini discuss their recent experiences with the national security cutter and discuss the relationship between operations and the capabilities provided by this new class of ship.

SLD: Could you describe the deployments you have had with the ship?

Captain Prince: We've done two patrols down to the Eastern Pacific. One was just a very brief 30-day patrol, but once the crew made the ship ready for operations, we did a 90+day Eastern Pacific deployment.

In addition we've conducted a 102-day deployment up to Alaska which also included a patrol of the Hawaiian Exclusive Economic Zone before returning to homeport.

Down in the Eastern Pacific, we had seven different interdictions highlighted by a couple early on in our deployment. We got a call from our tactical commander that said, "We need you here sooner…can you make 20+ knots for the next 1000 miles so we can get you down here early?" We easily made the speed using just the diesel engines, allowing us to not only arrive on scene more quickly, but also with plenty of fuel for mission end game.

This allowed us to be the primary asset, along with a maritime patrol aircraft looking for a fully submersible drug smuggling submarine. And even with limited underwater sensors, using reach back into the different intelligence communities, and communicating across different levels of government, we were able to keep ourselves in proximity to the threat for an extended period of time to the point that they ended up scuttling the submarine.

SLD: Presumably, some of that information from the other agencies is displayed on your screens on the bridge?

Captain Prince: Yes, it's part of our situational awareness which is used for decision making. During our deployments, we've dealt with a wide array of threats across a broad range of vessels. Our drug interdictions have already disrupted a street value equivalent to the cost of the National Security Cutter that otherwise would have been profits in the cartels pockets!

The smugglers are using a variety of vessels. They're using single engine vessels, close into shore. They're using single engine vessels further off shore. They're using multi-engine vessels in shore, and off shore. They're using fishing vessels. They're using semi-submersibles, and they're using fully submersibles.

In one patrol, we were able to successfully engage and disrupt narcotic shipments across that full spectrum of threats discussed, with the exception of a semi-submersible because there were none of those in our operating area at the time we were on patrol.

On that one patrol alone, we disrupted an estimated 12,500 kilos of cocaine. The street value of that approaches a half billion dollars. And if you compare that to the price tag

of the ship, I'd say that's pretty good return on investment given the adversaries we face.

SLD: So the speed and endurance offered by the NSC was a key part of your operational capabilities dealing with a wide spectrum of challenges as well?

Captain Prince: We were able to do it with the ship, not in every case, but in more cases because of the ability of the ship to make speed that our smaller more antiquated ships can't make. For a displacement hull, your hull speed is 1.4 times the square root of the length of the ship in feet. That's your hull speed. Any speed above that requires an exponential amount of horsepower. By making the ship bigger, it gives us more speed, more efficiently, more economically, and in the long run, cheaper.

SLD: And added to your new C4ISR tool sets, the speed of the ship is a winner in prosecution of bad guys.

Captain Prince: It is. For example, one of the tools, which have proven invaluable, is the Forward-Looking Infrared (FLIR). From over the horizon we can track a target of interest with the FLIR. Sometimes you get a nebulous radar track that you really can't correlate to anything else, they're not putting out their own radar or return so you can say oh, that's a merchant, or that's a navy ship. To be able to basically peek from high on the mast with FLIR and get a visual look at the target, without him really even seeing you, and even at night, you're assessing the threats in the area of operation without giving away your location.

Commander Ramassini: Another aspect of the impact of speed and endurance on operations can be seen in how long we are able to operate between port calls. Because of the efficiencies the ship offers, we have greater endurance and don't need to make port calls as frequently. And this helps us increase our operational security and provide persistent presence where we expect the smugglers to eventually be.

By not making a port call as often, the adversary doesn't know where we're located. And the longer we stay out, the less opportunity they have to figure out our location in an effort to avoid us. Every time we make a port call, word travels fast in today's in-

formation age, and our location is compromised. This ship is rarely constrained by fuel and can operate comfortably for nearly thirty days and even loiter for forty-plus with fuel in reserve. I joke that the ZZ Top song "She's Got Legs" sums up the NSC capabilities well; and everyday the Coast Guard is finding better ways to use them to support national strategies.

Another aspect of the impact of the ship on operations is our relatively low cross section. The older cutters have a big cross section, and are clearly visible on the radars of their targets of interest. With the design of this ship, when you are looking at the radar from a distance, we look like a fishing boat. That coupled with the use of the FLIR allows us to operate in a much stealthier manner over the horizon before sending our teams up close and personal over the gunwale.

SLD: Could you talk about the power plants on the ship?

Captain Prince: The ship is equipped with two diesel engines, and one gas turbine. We have actually five different modes of propulsion. We have what's called a harbor mode, which is a slow speed mode, one diesel engine driving both shafts. We have cruising mode, one diesel engine using higher speed clutches, driving both shafts. That's about 16 to 18 knots. We can have one diesel engine driving both shafts, or each engine driving their own shaft. The ship can make about 24 knots on the diesels. With the gas turbine alone driving both shafts, 26 knots. Combined diesel and gas turbine, that's both main diesel engines and the gas turbine all running at the same time, the ship can make about 30 knots.

SLD: How does that compare to the 270s?

Captain Prince: A 270's max speed is about 18 knots with both diesel engines all ahead full. Also understand that the 270s are not going to be able to make 12 knots in 10 or 12-foot seas. In contrast, we can operate economically on one engine, and easily transit at about 15 knots. I gain 25 percent more on-scene time, because it takes 25 percent less time to transit through the off station area. And the fact that we actually do it fuel efficiently allows us to stay there longer. We recently transited to Seattle and easily made

14-15 knots with a comfortable ride in 12+ foot seas with no degradation in crew readiness due to fatigue as a result of the excellent sea keeping .

SLD: Let us return to your tour and your operational experiences.

Captain Prince: Let me just close out the Eastern Pacific. Certainly the Eastern Pacific is not known for having the most extreme of weather conditions. Regardless, we were never out of pitch and roll limits to launch or recover the helicopter. And we were never out of limits, my comfort limits, and XO's comfort limits to launch or recover a small boat. So there was no time, while we were in that operating area, where we ever out of the mission execution "end game" business.

And a key purpose of the ship is to provide a stable launch and recovery platform for helicopters and small boats; those are the tools we use to actually interdict the smuggler, rescue the person in distress, enforce the law, and ensure security. A helo could've been broken, that doesn't mean I'm out of business. I can still launch that small boat and now have the capacity to operate with more than one air asset aboard. I can even hangar two helicopters and still have a clear deck to land a third, if ever necessary.

SLD: Could we talk about your small boats and how you use them?

Captain Prince: For a go-fast interdiction, our plan is always to launch two boats. One is the pursuit boat, the primary chase boat. Then there's the secondary boat that we call the support boat. And that secondary boat brings additional people to the scene once the pursuit is done. When you're in a small boat and you're chasing somebody at high speed, you're getting bounced a great deal. So the goal, the objective of that pursuit boat is simply to stop the target vessel, and maintain some positive control over it. Then they would be augmented or replaced by the support boat team, who we haven't been pounded on for the last hour and a half by a rapid pursuit.

The small boats are capable of about 35+ knots.

Commander Ramassini: The Legacy Ships have two small boats while the National Security Cutter has three. While we typically only employ two, it does provide us the re-

dundancy and additional capacity if there's ever a casualty, if something happens where we need to put that third boat in the water, we have it.

SLD: Might you highlight an example of how the NSC's endurance enhances operational efficiencies?

Captain Prince: A perfect case in point was down off of Hawaii where we were targeting tuna boats for inspection. We hopped on a boat at eight o'clock in the morning. We finished the boarding and it was time to move onto the next tuna boat. If the next guy was 60 miles away, that was no big deal. At 15 knots, I'm there in four hours, and can finish another boarding. The next guy's 40 miles away, and I can reach that third boat and do another boarding. So I have been able to do three boardings that day covering vast areas within our Exclusive Economic Zone without over-taxing my propulsion plant or using a significant amount of fuel.

If I were on a 378 or 270, I wouldn't get there until sundown for the second one unless I came up on the gas turbine which would use nearly three times as much fuel. I could do one or two during that same day as opposed to the NSC where I did three.

SLD: What is the patrol cycle planned for the NSC?

Captain Prince: We were just on a 102-day tour. The general practice is to deploy and patrol for three plus months at a time, responding as necessary to mission demands. We work to keep our personnel tempo at 185 days away from homeport each year; although we've been logging and are projected to perform well over 200 days in FY12.

SLD: To cover the Bering Sea for the year, how many cutters will one need?

Captain Prince: With a 185 days away from homeport perstempo, 2.5 to 3 cutters are needed to maintain a 365 – 24/7 presence which accounts for transit time, dedicated underway training periods, and scheduled maintenance that may be conducted away from homeport.

SLD: Any final comments?

Commander Ramassini: I have had a chance to observe the new capabilities for well over a year now and find them critical to our missions out there. We have discussed the command capabilities, but having the other mission enabling speed of the system and end-game asset capacities inherent in the ship are crucial as well.

You have three small boats instead of two and actually have the space for four if ever warranted. Instead of having one helo, you can literally have three on board at one time if there was ever a need. You could also have a helo, and two UAVs in the hangars while maintaining a clear deck for operating with interagency and inter-service partners.

The ship is designed with the two hangars; we can roll in two helos protecting them from the elements if we wanted to take two helos downrange with us. We have that flexibility, given the mission set.

We have the ability to operate with DOD, if we're going to land an Air Force or Army helo, Special Forces, or USN or USMC helos, we have that flexibility to do that. During this past patrol, we did training with Army Special Forces preparing them to deploy overseas. They bounced off our deck dozens of times demonstrating firsthand our ability to land the third-wheel H-60 aircraft and operate even partnering with high end DOD partners.

We also offer great flexibility and adaptability for Homeland Defense and Security; and even serving abroad in support of U.S. Combatant Commander's global maritime partnerships. The transit ability and the sea legs in this ship are remarkable – we offer outstanding partnership and persistent presence wherever we go. Up in the Bering Sea where we'd cover a 300,000 square mile area, steaming all the way up to the Maritime Boundary Line, and back down to the Aleutian Chain, and cover that area in a very efficient manner waving our flag, protecting our exclusive economic and projecting U.S. national interests in the Arctic along the Maritime Boundary Line, the U.S./Russia Border. So we have that presence. And just be able to show our peer competitors that we're still concerned about this area, and we have a presence with remarkable helicopter

launch and land capabilities up in the harsh Bering Sea with a ship like this is important to our nation and ultimately our sovereignty.

The Coast Guard has something special here. Although the National Security Cutter is 40 feet longer than our old 378s we operate with 50 fewer people and with only about ten percent more than are currently on our 270s. Efficiency and economy comes with technology – we're embracing it and moving out smartly and effectively. The NSC – She's got legs and a crew who knows how to use them!

ON THE BRIDGE OF THE BERTHOLF: CON-OPS ENABLEMENT BY THE NSC

08/21/2011 During a visit to USCG Island in Alameda, California, headquarters of the USCG Pacific operations, Captain John F. Prince, recently commanding officer of the USCGC Bertholf and the executive officer Commander David W. Ramassini discussed recent operations and how the capabilities of the NSC allowed them to achieve mission success.

A key way to think of the NSC is a command post afloat with self-contained assets, and because of C4ISR, reachback and reachout capabilities to national assets and partner capabilities. It is an operational bubble at sea able to control and operate over significant areas of land or sea to execute its various missions. Much like one can conceptualize the revolution inherent in the F-35 cockpit, the bridge and its various tool sets represent the "cockpit" for the command team of the Bertholf.

Rather than thinking of the NSC as a new cutter and simply as a replacement for the Hamilton class, one should think of the ship's entry into the 21st century world of C4ISR enablement, and the bridge as where C4ISR D (i.e, C4ISR enabled decision making) is executed.

While standing on the bridge with Captain Prince and Commander Ramassini, *Second Line of Defense* discussed the correlation between missions conducted on their recently completed patrol and the command assets on board the ship.

Captain Prince: It was about midnight off of the Coast of Panama around 8-10 miles. Our helicopter was broken and we had one of our small boats patrolling along the coast,

and we had just recovered another. Just then a target of interest shoots past us in a very fast boat.

Our response was to put a small boat right back into the water and off they went. The Combat Information Center (CIC) vectored our small boat to intercept the target as the bridge and CIC had them on radar and visually on the screen monitoring the pursuit.

SLD: All this is happening on the bridge on your various C4ISR systems?

Captain Prince: Yes. We had a radar track on the guy we were chasing and we had a radar track on our small boats. We were using the radar to vector the small boat in pursuit. We were using the FLIR system to monitor the suspect vessel we were pursuing in order to be able to know when he was making a course change. It also allowed us to see if there was any other suspicious activity ranging from jettisoning packages to other activities on deck.

SLD: As you indicated earlier, this pursuit was occurring in the middle of the night?

Captain Prince: Yes and even though it is the middle of the night, I can see what my boat is doing. I can see what the other boat is doing. I can actually watch and record what is happening.

SLD: Can we move to the displays and communication systems just in front of us on the bridge and could indicate how you used these various C4ISR tools?

Captain Prince: I can use my navigation display in front of us to have full situational awareness of any navigational dangers as I am steaming in this case at more than 25 knots in support of the pursuit of the suspect vessel. I am able to monitor the bigger picture making sure that I am just not going to run myself or my small boats into a cargo ship by being fixated on the go-fast style vessel we are chasing.

And we have a blue force locator within our common operating picture so I know where is the nearest navy ship is and aircraft in vicinity of me. All the relevant information was available right here on the four screens on the bridge enhancing a coordinated response.

If I wanted to talk to our small boat, I can press a button. If I wanted to talk to the CIC, I can press another button. If I want to talk to relevant USCG operations centers I can press another button. I can talk internally within the ship, I can talk locally and I can talk globally by pressing a button in front of us.

SLD: In effect, you are managing a small task force from the bridge of the ship because of the C4ISR systems?

Captain Prince: Absolutely. You have full awareness of your Area of Operation (AO), especially with the new air search radar, which is three dimensional. We simultaneously tracked over 50 aircraft during the Exercise Northern Edge 200 miles out. We have significant situational awareness of a very large segment of the ocean in which we are operating.

Commander Ramassini: You are right to emphasize the task force quality provided by the systems on the NSC. We can travel over 1500 nautical miles in two days and still remain on station for quite awhile. We can stay on station for more than 20-25 days without any fuel concerns. We have core C4ISR systems which interoperate with our Department of Defense and Homeland Security partners. We are able to plug and play with our navy as we we just did in Exercise Northern Edge off of Alaska;and we can work with other DHS assets like we did off the southwest border and in the drug transit zones throughout the Eastern Pacific.

For the military geographic combatant commanders, we provide an access globally, which is unique to USCG operations and relationships. Foreign nations work with the USCG in our law enforcement capacity, which allows us to operate and partner at the lower constabulary end of the spectrum; but also interoperate with other US assets throughout the spectrum up to higher intensity operations.

This ship brings all that capability to the equation serving as a unique instrument in regional stability and global security.

Note: The C4ISR D capabilities of the NSC can be exercised either from the bridge or the command center below deck. Captain Prince comments:

We could also do all of this from CIC (and that is where we prefer to do it) which is where I normally go. CIC gives us access to SIPR and other tools that are not available on the bridge. I just happened to be on the bridge to supervise the small boat recovery when the target sped by.

THE NEW USCG CUTTER: A "CHAOS MANAGEMENT SYSTEM"

In early June, 2010, the SLD team visited the latest National Security Cutter, the WMSL-751 or the USCGC WAESCHE. The team toured the vessel while it was ported in San Diego for a training and repair mission. Captain Lance Bardo, the Commanding Officer of the Waesche, retired later in 2010, provided an overview on the ship, its con-ops and missions.

Captan Bardo, a career cutterman, has served aboard eight cutters over 26 years, commanding six prior to CGC WAESCHE. His seagoing duty has included Fisheries and Search and Rescue in the Northwest Atlantic, Bering Sea and off the California coast, icebreaking on the Great Lakes, as well as extensive counter drug operations in the Caribbean and East Pacific. Most recently he served as Commanding Officer of CGC MIDGETT (2008), HAMILTON (2007) and BOUTWELL from 2002 – 2004 and led the interdiction of over $1B in contraband in the Eastern Pacific.. These are existing USCG High endurance Cutters - 378 feet long and referred to as 378's in the interview below.

The new USCG cutter brings to the table significant C4ISR capabilities, digital capabilities for operations and maintenance, an ability to operate much larger helicopters on its decks, an ability to operate remotely piloted vehicles, significant endurance, and an ability to operate for extended periods of time at sea. In crises like Katrina or the Gulf oil spill, the new cutter brings significant command and control capabilities to any task force managing a disruptive event.

Captain Bardo added further emphasis on the crisis management capability of the new Cutter. "And this asset is large enough with enough capability built into it actually to manage your response I mean that literally; we have nothing else in the Coast Guard or the Navy for that matter to manage domestic response the way this platform can. And the Coast Guard has demonstrated over and over again, as recently as the current

Deepwater Horizon oil spill and the Haitian earthquake, that we are at our best when we respond to domestic emergencies and a major offshore cutter is often the center of that. The Navy is a great partner in those emergencies, but it is just not their primary mission."

SLD: Perhaps from this point of view it should not be called a national security cutter, because it narrows understanding of what it can do and what it can contribute?

Captain Bardo: Maritime security cutter; maritime management. The "W" for Coast Guard maritime security cutter large was an attempt to kind of communicate its size and contribution to the service and the nation.

SLD: What are the unique features of the ship you would underscore?

Captain Bardo: Endurance; if you have endurance; you've got stability; you've got command capabilities; you've got a lot of flexibility inherent in the ship itself and crew and that's what you really want to emphasize. The platform enables this kind of tool sets or the toolset synergistically interacts with the platform.

SLD: What other capabilities would you emphasize?

Captain Bardo: Our flight deck is literally twice as big as our older cutters; four-thousand square feet versus twenty-three hundred on a 378 and I can land a sixty. I can land all variety of helicopters that a 378 can't.

When the seas tossing the ship around, I have much stability to allow helos and UAVs to operate.

On a 378, I had to make really hard decisions by taking saltwater into my fuel tanks; what it did is it added about three days to get rid of that water when you wanted to then fill up the tanks with fuel. With this ship I don't have the same problem, because I have a segregated tank.

I don't know what helicopters we will have to operate within the future but, I can tell you this: I can operate with a lot more flexibility than that 378 can. I always had to manage my fuel on a 378; for aviation I had eight thousand gallons of fuel. I've got a

thirty-five-thousand gallons of aviation fuel on this ship so, you can fly those helicopters for a long, long time on four times the amount of fuel; it really gives us a tremendous amount of flexibility; it's not a platform for platform placement for a 378. It's a tremendous leap ahead in terms of growth capability as well.

SLD: How would summarize the impact of the new cutter on operations?

Captain Bardo: We can be fifteen hundred miles from where a crisis is occurring and be there in a matter of two days. We have the ability to talk to anyone anywhere in the world. We have the ability to organize a lot of different agencies because of the ability to communicate. We have the ability to put people actually on the scene with boats and aircraft. We have the ability to remain on station for up to ninety days. We can make our own water; we make our own electricity; we're essentially a small city and a small commanding tool can be a global command and control platform.

SLD: We're facing a lot of challenges and many of them are unknown and we're dealing with a lot of potential chaos; and asset like this really allows the Coast Guard to function in a kind of maritime management role for dealing with various future crises. Can you talk to this point?

Captain Bardo**:** We need to look forward in the kinds of threats that we might face; we might encounter and it's hard to see them without a crystal ball to figure out exactly what those might look like but, this ship has got a lot of capability built in it to deal with uncertainty.

The first thing that you run into in a ship at sea in your people wear out so, things like having a dedicated ballast system; it allows me to ballast the ship down as I use up fuel; gives the ship a little more stable ride; less fatigue on the people.

The fact that the places where the people live are far more comfortable surroundings for them allows them after three weeks not to be tired of their forty, roommate's; they are in state rooms with four or five roommates.

From an operational perspective, those same kinds of things apply too. For example; our ability to recover aircraft; the ability to keep the ship more stable; to have a configuration on the flight deck that makes it easier for pilots to land and to launch; to have enough fuel; to be underway with any variety of aircraft for sixty or ninety days without having to manage the amount of aviation fuel that we have; if we have enough on board gives us a tremendous amount of flexibility in the future for threats that we can even imagine right now.