U.S. COAST GUARD

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Center for Naval Analyses

"Readiness: The Reality Behind the Numbers"

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Amenities:

It has been said that "a conference is a meeting to decide where the next meeting will take place." That may be true of the WTO meeting out in Seattle this week, but I have much higher hopes for this gathering. My confidence comes partly from knowing that the importance of military readiness will draw the serious attention it deserves and partly because the CNA has done its homework so well in creating a forum for us to consider readiness issues in a way that can actually lead to improving readiness.

The panel topics are relevant and practical. How do we assess readiness? Is there a people problem? Has operational tempo affected readiness? What are the operators saying? Have we shortchanged training, maintenance, and spare parts? How should we protect readiness?

I'm delighted to join you as you grapple with these issues. I am grateful to Robert Murray [President of CNA], Dr. Samuel Kleinman [CNA VP], and Dr. Laura Junor [Conference Director] for their role in bringing us together. And I thank all of the conference participants and attendees for your commitment to military readiness.

Introduction: Differences between Business and Military Measurement:

Dave Thomas—the fellow who founded the Wendy's hamburger chain—wrote a book about his meandering path to success in life. In that book, he briefly explained his approach to measuring the health of his company.

As you might imagine from the commercials you've seen, Mr. Thomas didn't spend a lot of time poring over spreadsheets. He was a hands-on leader. He formed the habit of identifying a very small set of numbers that gave him a good sense of what was going on. He briefly checked those numbers every day, and then he spent the bulk of his energy out on the floor with his customers and employees exercising the kind of leadership needed to keep the numbers tending in the direction he wanted. These few numbers tracked carefully—combined with a lot of personal involvement—were all he needed to have a clear grasp of where he stood.

Those of us in the readiness business quickly encounter problems when we try to follow Mr. Thomas's worthy example. If a small set of numbers exists that can convey an accurate sense of overall military readiness, it has so far eluded the most determined efforts to find it. Three important differences between hamburger stands and armed forces keep us from nailing down a convenient index of readiness.

One difference between Dave's way and our way is that businesses measure results whereas military planners measure potential. Instead of measuring what we have done—how many hamburgers we sold and how much money we get to keep—we try to measure surge capacity: what level of effort would we amass if faced with an emergency?

A second difference is that extraordinary human effort can undermine the apparent reliability of the measures that do portray our readiness condition. The devotion to duty so prevalent among service members often puts the lie to our honest claims of reduced capability. We saw that happen a couple months ago when Hurricanes Dennis and Floyd hit the eastern seaboard. The public saw the Coast Guard at the center of a massive and well coordinated disaster relief effort. What they didn't see was the intense scramble to locate parts and perform maintenance to get all of our Elizabeth City C-130's operational and to keep them flying throughout the operation. The performance they delivered could not have been predicted from analyzing our availability statistics, and we shouldn't kid ourselves into believing we can expect similar results as a matter of course.

A third difference is that our measures resist aggregation. No matter how big a hamburger chain grows, you can combine the financial statements of the individual units, look at the totals and the ratios between various lines, and get an idea of the overall strength. It's a lot harder to see what combinations of military units might be able to do if they are needed to work together.

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The difficulty of measuring an intangible element like potential output quickly leads to the even more daunting challenge of explaining the basis for our readiness concerns to the American public, the administration, and to congress.

My plan this morning is to skirt these difficulties in measurement by looking in detail at a single operational community within the Coast Guard—our fleet of C-130 aircraft—and illustrating how our parts shortages, personnel issues, and increased optempo are serious individual problems that compound the effects of the other problems.

I will focus on C-130's for three reasons.

First, they are a common currency among the armed services. Everybody flies them, so the lessons they offer may resonate more broadly through the audience than those of systems unique to the Coast Guard. C-130's are the class of operating assets that is most dependent on DOD systems. Many of the stresses we feel are downstream manifestations of pain that is also felt by DOD.

Second, C-130's are a microcosm of the readiness problems that face every operational community within the Coast Guard. The combination of aging assets and sensors, increased operational tempo, personnel shortages and inexperience, and parts shortages that besets our C-130's also hinders the effectiveness of our cutters and our other aircraft.

Third, C-130's epitomize previously stable trend lines that are now headed in the wrong direction. Four or five years ago, C-130's were our most reliable platform. Now we struggle to meet even our normal day-to-day commitments.

Optempo, Parts, and People:

Those trend lines raise serious concerns. Over the past four years, HC-130 availability has dropped from almost eighty percent to barely sixty percent. Air Station Elizabeth City, North Carolina, has five C-130's, and they are expected to have one of them immediately available at all times. During the first six months of 1998, they met the standard for all but one hour. During the first six months of this year, the hours without a ready plane jumped to thirty seven. A standard we used to achieve easily now seems unattainable. E City hasn't gone a single month without a coverage gap in more than a year.

Optempo immediately looms as one cause. We've always worked our C-130's hard. They're getting old. They fly low altitude patrols in a salty environment, and we program them to fly about a third more hours than the DOD services do. Over the past few years, we haven't added new planes, and our Search and Rescue obligations haven't been reduced, but we have asked our C-130's to perform a lot of deployments in support of our drug interdiction mission. As a result, C-130 days away from home station have increased more than 60% over the last four years.

We've lost a full 25% of our availability while piling on additional mission requirements. That one-two punch consumes a whole lot of flexibility and surge capacity.

Optempo feeds our parts problems. Older assets worked harder can be expected to break more often. When they do, they need more parts—parts that are becoming more scarce and more expensive.

We try to keep the percentage of hours for which aircraft are not mission capable because of parts to less than five percent. Before 1995, we were consistently at or near this standard. Since then, our parts-related unavailability has steadily risen, standing now at about 16%, more than three times higher than it ought to be. Over this same period, the inventory value of C-130 parts awaiting repair or replacement has doubled.

As budgets increase more slowly than costs, the problem reaches crisis proportions and desperately improvident measures suddenly seem reasonable and necessary. We look for other sources of funds—places like the training budget—and we cannibalize parts from otherwise serviceable aircraft to keep others flying.

Experienced aviators recall times when cannibalization simply was not done. Today it is almost routine for air stations to have a designated "Hangar Queen" out of service for

months at a time because its parts have been transplanted in other air frames. Cannibalization takes planes out of the rotation, increases the workload and maintenance on the other planes, and depletes flexibility in meeting response requirements.

Worse still, cannibalization transmutes our parts shortage into personnel problems. When we cannibalize, we double the maintenance workload. The normal way for a mechanic to replace a part is to take a box off a shelf, remove the defective part, and install the new part. One part removed, one part installed. With cannibalization, two parts have to be removed and two parts have to be installed.

This doubled work is performed today by less experienced maintenance crews than we had working a few years ago. The average time in grade of our chief aviation mechanics has dropped 50% over the last five years. What this means is that less experienced crews who should be getting more training are instead performing the extra work occasioned by cannibalization.

These personnel pressures inevitably affect retention. We train our aircraft mechanics to be professionals, and they take pride in doing their jobs right. Because they are professionals, they know when we're doubling their work, and they know that cannibalization isn't the right way to do their job. Sooner or later, they have to ask whether they are willing to work twice as hard as they should in order to get paid less than they're worth to do a job in a way that offends their professional conscience. When they leave, our personnel shortages get worse.

Overworking inexperienced crews in a good economy is not a good prescription for improving retention.

The story here is that optempo, parts, and personnel problems feed off each other and compound each other.

Consequences:

The practical real world consequences of this situation play out in our routine operations. During the month of October, we observed the following situations as a result of C-130 readiness problems. We missed law enforcement missions in Florida and in Alaska. We lost track of a suspected drug smuggler because maintenance issues forced a late launch. We lost training flights to SAR and LE missions. C-130's left their home bases late and returned early from law enforcement deployments because of maintenance problems. We had C-130's fly search and rescue missions at higher than normal search altitudes to compensate for cabin cooling limitations, thereby reducing the probability of detection. And we had C-130's reduced to visual searches because their radars didn't work.

When we suffer such effects in one month of normal operations, we know we're operating without a net when called to perform major operations.

We almost had a dramatic example when Hurricane Lenny cut a swath through the Caribbean a couple weeks ago. We had a deployed C-130 in the region, and like most C-130's it had deployed with exactly one crew—we can't afford to send spares.

Just when the C-130 was needed for disaster relief operations, one of the crew members needed a root canal and was medically grounded. As it happened, the afflicted person was a basic air crewman, and the operational commander granted a waiver to fly one person short. It worked out fine. However, if almost anybody else on that crew had needed that root canal, the flight would have been canceled. Think about it, the United States Coast Guard, Semper Paratus since 1790, was one toothache away from not being able to respond to a hurricane!

One aviator recently told me, "What we're doing now is all that we can do." The frugal taxpayer may rejoice to hear this proclamation, but the stranded boater surely does not.

The commanding officer at Air Station Barbers Point in Hawaii recalls the airlift undertaken when the super typhoon Paka hit Guam around Christmas of 1997. We mounted an all-out relief effort to bring Red Cross supplies out to the western Pacific. Looking at current availability rates for his C-130's, he doubts he could deliver an encore performance this Christmas.

These problems also affect other armed services. Our air station out in Hawaii has a Long-Range Intercept mission requirement to have a C-130 available in case a civilian airplane has to ditch. Our air station increasingly finds itself unable to meet this requirement and has had to pass it off to Navy P-3's for as much as two days at a time. The P-3's are less well suited for this mission, and they already have jobs. So our readiness problem ends up becoming the Navy's readiness problem.

If that had happened last week, the results could have been deadly. A general aviation plane did have to make a nighttime ditching, and a C-130 was needed to get on scene to mark the ditch course with lights and get a fix on the downed aircraft.

AirSta Sacramento SAR Case:

Lack of readiness may already be costing us lives.

In one case last month, our readiness problems may have prevented us from saving a life. Air Station Sacramento has four C-130's. At the time of this incident, the first C-130 was the ready aircraft on immediate standby, and a second was ready to fly as a backup to the first. The third plane was deployed for counterdrug operations out of the country, and the fourth one was the hangar queen. It had been out of service since April and was being used as a parts source for the other planes.

This situation might have been tenable except that the second C-130—the backup to the ready aircraft—was overdue for some maintenance that could be extended only for a few more days before the airplane would have to be grounded.

The air station had to perform the maintenance, but scheduling the maintenance required them to choose a day on which they would have no backup to the ready C-130. Not having a backup is a bad situation for a search and rescue unit because mariners tend not to consult our availability schedules before getting themselves lost, and some of them persist in remaining lost until multiple sorties are flown.

But there was no choice. The air station picked a day with no law enforcement patrols planned, scheduled the maintenance, and took the plane off line to perform the work. Sure enough, there was a SAR call on the day they picked.

Ordered to locate the source of an EPIRB alarm, the ready aircraft took off, flew 500 miles off Cape Mendocino, and found a genuine distress situation. A dismasted sailboat was battling 70 mile per hour winds, mountainous seas, and low visibility. The boat's lone occupant was in serious trouble. The air crew could see him through the weather from time to time, but they couldn't establish communications. They dropped a radio to the sailboat, but the operator wasn't able to retrieve it from the heavy seas.

Surface units were en route, but help was hours away.

In a case like this—crippled vessel, extreme weather, no communications—we definitely wanted to maintain continuous air presence until a cutter could arrive on scene. And we could have maintained that presence if our second C-130 had been ready to fly.

But it wasn't. It was being worked on, and there was no way to button it back together in time. We looked for other assets and found an Air National Guard C-130 in Portland, Oregon, but the distances involved meant that our C-130 would head home well before the relief plane arrived.

The Air National Guard plane reached the scene as night was falling. By that time, the EPIRB had stopped transmitting. There was no sign of the sailboat, no sign of its occupant. Nothing but wind and waves and rain.

We searched for six days. We flew eleven C-130 sorties from Sacramento. We brought in a buoy tender, a medium endurance cutter, and a high endurance cutter with an embarked HH-65 helicopter. The Air National Guard continued to provide C-130 support, and a USNS ship diverted to help. A huge effort. Spent more than we did on the more publicized JFK case. All we found was some debris.

A second C-130 might not have made any difference to the lost sailor. It's possible that he would have died even if we had kept a plane overhead. But at the very least, we would have known when and where his boat went down.

This case illustrates four unacceptable consequences of our readiness situation. First, we jeopardize our own crews by sending them into situations in which we know we can't provide a backup if they get into trouble. Second, we don't have the confidence we ought to have that we are giving stricken mariners the best possible chance to be rescued. Third, our inability to do the job right the first time requires the expenditure of far more resources than would have been needed if the right assets had been available when first needed. And fourth, when we finally close the case, we find our already precarious readiness posture has been further degraded by the parts and the people we burned out in the too-much-too-late rescue effort.

A readiness climate in which we habitually make extraordinary expenditures when it's too late because we can't bring the right resources to bear when it matters is simply intolerable to me—and ought to be intolerable to the American public.

Conclusion:

Earlier in my remarks, I mentioned a ditching case out in Hawaii. Everybody involved in that case praised the downed pilot for his poise and professionalism. After being rescued, the pilot explained why he remained calm and confident throughout his ordeal. He said, "You know if you can hang on until the next morning that you're going to make it because the Coast Guard is going to come and get you. It's just a matter of if you can hang on."

Will Rogers once said that it's not what you don't know that gets you in trouble, it's the things you know that ain't so. This civilian pilot represents the American public in that he "knows" the Coast Guard will be there to save him if he can just hang on. Unfortunately, his knowing doesn't make it so.

I believe the readiness problems in the C-130 world mirror similar problems of similar magnitude in our other operational communities. In fact, given that our C-130 fleet is younger and better maintained than many of our cutters, it's almost inevitable.

The unfavorable trends in aircraft availability, parts inventories, and crew experience challenge our ability to provide mariners in distress with the rescue services Americans have come to expect.

These problems impose two responsibilities upon us, which I will offer as challenges for this conference.

The first responsibility is to speak frankly about the seriousness and the extent of the problems we face. We cannot permit the public to learn of this situation only when we fail dramatically to provide some service the taxpayers think they paid for. Many of our readiness issues are the sort of problem that really can be solved by throwing money at them. Twelve or thirteen million dollars to restore our parts inventories to where they were a few years ago would be a nice place to start. We should say so.

The second responsibility is to come up with better ways to think about managing our readiness challenges. Understanding that immediate relief from budgetary constraints is unlikely, we need to attend very seriously to the problems that will persist when we shake the money tree and nothing falls into our baskets. Not having enough is not a sufficient reason for not doing our best with what we have. We will all face difficult choices about balance, setting priorities, deciding where to allocate the next dollar. This conference offers an excellent opportunity to frame our understanding of the work that lies ahead. Thank you.