



**Remarks of Dean C. Borgman
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Good morning. It's great to be back in Carmel with you. And thanks for the opportunity to lead off this important workshop.

Today I'd like to define a vision: Unleashing the potential of vertical flight to save lives, increase mobility and protect the nation.

Helicopters provide a first response capability for homeland security. That's pretty obvious.

We learned that firsthand at Sikorsky that awful day in September 2001. Seven military Black Hawks and the chase S-76 from our Stratford flight field swarmed to the New York area in the uncertain, tumultuous hours after terrorist attack on the World Trade Center 55 miles away.

Indeed, the corporate helicopter fleet can be a force multiplier in the golden hour.

In New Jersey, two corporate helicopters also responded by flying blood plasma and blood-donation kits from Philadelphia to the New York area.

They were part of the New Jersey-based National Burn Victim Foundation's volunteer "air wing."

Many corporate flight departments stripped out or covered over their helicopter interiors in anticipation of being called in to service. As it turned out, they weren't needed, but they very well could have been and, regretfully, we must be better prepared for similar man-made incidents in the future in addition to naturally occurring disasters.

Given our responsibilities around the world, we can't count on there being enough U.S. regular military and National Guard helicopters available in a crisis or natural catastrophe.

Non-military helicopters, if integrated into the homeland defense system, can augment our abilities to respond in the event of terrorism or disaster.

There are many civil EMS operations, plus there are public use/municipal services like the Los Angeles County Fire Department.

Of course, it works both ways, with military helicopters being able to seamlessly integrate into public use operations if needed.

Helicopters can provide essential transportation needs in the so-called golden hour -- getting critically injured victims to trauma care immediately -- a major multiplier in saving lives.

Exercises with corporate operators took place in 2003 in the northeast. The event simulated mass casualties after a hurricane hit Long Island, N.Y., and an airliner crashed in Connecticut. About a dozen helicopters took part.

The drill was rated a success and drew its share of local headlines. Another drill is planned this May.

Last year's exercise showed how a wing of corporate aircraft, in this case assembled and coordinated by the National Burn Victim Foundation, could respond to the call.

Honeywell Aviation Services served as aviation coordinators for the drill.

Dispatchers at AT&T's flight department in Morristown, N.J., coordinated operations and served as Mission Control that day.

Through its ARINC antenna, that center could talk to aircraft at 2,500 ft. within a few miles of Hartford to the north and as far south as Philadelphia, a distance of about 150 miles.

Drill planners worked closely with FAA officials from the Eastern Region.

This is corporate American volunteerism at its best.

We should encourage corporate participation in such events so we truly know our capabilities. And we should promote the value of this volunteer service.

There are national capability requirements only VTOL aircraft can meet.

However, improving the ability to call up and deploy civil and military helicopters in times of crisis is not enough.

It's essential that the infrastructure be in place from which to operate these angels of mercy, with all-weather, helicopter-oriented departures, enroute navigation and communication and approaches already established and operational.

I know, we've heard calls for infrastructure improvements before, but there has never been a greater need.

Infrastructure, whether it is heliports or procedures for access to airspace, is more critical than ever before.

Ground transportation infrastructure, such as highways and bridges, are often among the first casualties of catastrophe. We need to get medical personnel and supplies in. We need command and control people on-scene to assess the situation. And we need to get the most injured out and distributed among the hospitals in the area. That's the unique capability of the helicopter, proven time and again, around the world, from Chernobyl to Japan.

Let's hope that the time to employ this effective means of disaster relief never comes. Whether it does or doesn't, the operational capability can be kept fresh and the public can benefit from the use of the infrastructure and procedures by a VTOL-oriented transportation system. It shouldn't be lost on us that this same kind of infrastructure could be used to promote scheduled rotary-wing passenger operations.

A significant byproduct would be the easing of airport congestion.

We know that helicopters can increase air system capacity because they don't require runways. The national press is reporting that of our airports -- such as Chicago O'Hare -- are filled to capacity. American and United airlines will cut 5 percent of their flights at O'Hare through the summer to reduce worsening delays. The airport really can't deal with any more aircraft.

We must promote the notion of scheduled flights using short haul commuter helicopter applications. If we could offload traffic from our major airports, this would increase system capacity.

Today, with the advent of satellite navigation technologies such as GPS we are no longer dependant on VOR airways or ILS. Therefore we can fly safely and efficiently from point-to-point, saving time and fuel.

I believe that we already have more than adequate reliability and safety for the task -- thousands of scheduled helicopter offshore helicopter operations each day and the existing scheduled helicopter airline operations have demonstrated that.

What are trying to do here is leverage the need for emergency response as a way to help us get the requisite infrastructure for expanded corporate and charter operations and as soon as possible, scheduled helicopter airline service between major city centers.

That is the nexus.

For instance, if we were to go to 60th Street heliport in New York and demand that we should have the helicopter operations back so we can carry corporate executives and tourists, the public, which lobbied against the heliport, would be as unimpressed now as they were then.

On the other hand, what if we talked to those people and said that another 911 could be just a step away? We're going to have more problems -- we need to have a suitable infrastructure for homeland security.

Some of those people might at least start thinking about that.

This emerging synergy in turn could be a catalyst to the flourishing of helicopter short-haul carriers and help ease airport congestion.

What we must do is promote the benefits of a helicopter-specific transportation system so that local communities can see more easily the value of an emergency response infrastructure.

If we help others make the connection between emergency response and helicopter infrastructure, we can maximize the role of rotorcraft as a national asset.

Helicopters can provide that immediate response that is essential to saving hundreds and maybe thousands of lives. We need to make that response available as soon as possible.

We need rotorcraft, civil and military, but especially civil, to facilitate the government response in times of national emergency. And we need infrastructure and all-weather operational procedures if that's going to be successful.

The building blocks exist already. There's no need to reinvent the wheel.

Thanks to many people having the vision of an all-weather, rotorcraft-oriented transportation system, all the building blocks are there to create one. I understand the need for caution in developing standards and regulations, but the right people need to sit down, consider the unique capabilities of the helicopter, set up monitored demonstrations as was done for the use of GPS in EMS operations, and let qualified operators prove what is practical and safe.

For example:

- **Redirect the use of Satellite Navigation development resources to find operationally satisfactory solutions for helicopter users, based on their needs for routes and approaches. Current FAA policy is to find**

implementations for the basic SATNAV systems as free-standing systems, and let the operational capabilities fall out. We need to set operational goals, and then find solutions using blended systems, if necessary.

- **Recognition that Instrument heliports are not airports, and that approach lighting systems developed for airplanes that have to land before they stop are overkill for helicopters - 1/4 mile of lights aren't needed.**
- **Adaptation of heliport criteria that allow the extra performance of helicopters to produce steeper entrance and exit criteria, thus allowing heliports in more congested areas, as long as the helicopter has the performance to produce the proper flight path. Today's rules use a "lowest common denominator" concept so heliports can't be built on some sites that could be safely utilized by some helicopters at appropriate weights with appropriate procedures.**
- **Allowance in noise regulations for special noise reduction configurations and techniques. Now rules are generally written around the worst-case situation, thus limiting the operator's use of alternate configurations, rotor speeds and techniques to meet the regulations.**
- **Appropriate use of LAAS signals at off-airport heliport locations so that helicopters can capitalize on airport investment.**

I therefore strongly encourage more funding for and focus on fast track implementation of technology in increase safety and usefulness, as with an Enhanced Ground Proximity Warning System and the integration of DGPS and AFCS to achieve automatic, hands-off transition from cruise flight to a 50 foot hover over a helipad. These are examples of industry/government cooperative programs where the investment and technology has been shared to the benefit of all.

We also need to accommodate the transportation security concerns.

Now let me add a Wish List that really should be a Must List if America's use of helicopters is to realize its full potential.

Although all the elements are available for a safe and useful helicopter-focused transportation system, we still need to invest in the technology to make U.S. rotorcraft more efficient, effective, smoother and quieter. We must pay relentless attention to getting the support that the U.S. helicopter industry needs for technology development. We don't want to be dependent on foreign manufacturers for helicopter products.

For example, we need main and tail rotors with more hover lift/thrust per horsepower, less cruise drag, less noise in all regimes, with ice protection that requires minimal power.

That requires a continuation of basic work in airfoils, advanced work in rotor structures, research in icing, improved techniques for performance and noise measurement and prediction. It would also be helpful if we had the rules and tools to design a horizontal stabilizer right the first time, but that may be asking for too much, like peace in the Middle East.

Where will the funding come from?

We all know what has happened to NASA's budget for rotary wing. And now their attention is even more directed to the big S, space.

The U.S. Military has funded rotary wing RDT&E, but the lion's share over the past 30 years has gone to fixed wing programs in a ratio of about 5:1, even though rotary wing aircraft make up almost half of the combined airborne assets of the US military.

If you add up all the money that has been spent so far on Comanche and V-22, the Pentagon has spent more than that on fixed-wing programs that were canceled!

The Pentagon has spent almost as much on the F-22 as it has on all rotorcraft programs put together.

And while there is no question that some elements of U.S. military helicopter research and development funding are somewhat relevant to civil operations, most of it is focused on purely military requirements like minimal radar signatures, ballistic tolerance, weapons system integration and the like, which are not in the civil realm. (At least I'd like to think that they're not.) Comparisons of European industry subsidies and U.S. Government R&D contracts are deeply flawed, particularly from the helicopter industry standpoint.

The good news is that Congress has now directed the FAA to provide them with a Civil Rotorcraft R&D Plan by June 2004. It mandates significant improvements in noise, vibration, empty weight, safety, and operational capability in ten years. We need to support that initiative with all our best people and ideas.

However, let's not let that prospect of a bright future and improved technology deter us from eliminating the barriers to the use of helicopters now, and the resulting benefits. That success will justify the increased and continuing investment in this uniquely American innovation in flight.

Well, a lot has happened in the since Carmel 1 in 2000. We live in a different world, it is true, but one that needs the helicopter now more than ever to move

people from where they are to where they want or need to be, whether saving lives or increasing mobility, like no other mode of transportation.

Thanks for letting me share this vision with you. Let's now define the requirements, the benefits, and the barriers, and establish an action plan to provide for the full acceptance and utilization of rotorcraft, tomorrow and in the future.