

## **Meet Ken Carey, Meteorologist and Principal Systems Engineer at Noblis in Falls Church, VA**



I'm one of the luckiest people in the world to have worked in the meteorological profession for more than 25 years. I started with an extraordinarily fulfilling career in the United States Air Force. I moved on to some incredibly interesting work as a contractor working with and for the National Weather Service. Now I find myself in an engaging position working to provide innovative strategic solutions in the public interest for clients of Noblis, a system engineering firm.

### **How did you first get interested in weather?**

I was, in our weather-weenie lingo, a “snow freak”! Ever since I can remember, I went crazy any time we had a chance of snow. Now, I grew up just outside of Baltimore, Maryland, so we didn't get that much snow. However, I knew the phone number for the recorded weather forecast by heart (there were no available Internet sites back then!). It was my love of snow and fascination with what caused it that led me to pursue the only program in the state of Maryland that offered something like a meteorology degree: physical sciences at the University of Maryland in College Park, Maryland.

### **How did you find your first job, and what was it like?**

My first weather-related job—I cut lawns and carried groceries starting at age 11, then worked at a restaurant and a major drugstore chain from the age of 15 all the way through college—was plotting skew-T log P diagrams, posting maps from the facsimile machine, and posting numerical forecasts off of the “Service A” and “Service C” teletype lines at the University of Maryland's College of Physical and Mathematical Sciences. I was also fortunate enough to assist some University of Maryland meteorology department professors with some of the research they were conducting. I also provided campus radio forecasts, which was a great experience for me to try to apply what I was learning in the classroom. It was around that time that I decided to become an officer in the Air Force—motivated by the fact that they offered me a scholarship in my freshman year! Over the next 21 years, after I earned my BS in Physical Sciences at Maryland, I completed a non-degree meteorology certificate program at Texas A&M University and an M.S. degree in Mesoscale Meteorology with a minor in Oceanography at North Carolina State University in Raleigh, North Carolina. I was fortunate to have fantastic jobs and travel the world while in the Air Force. During my Air Force career, I provided operational forecasts for worldwide combat sorties; environmental support for classified intelligence and reconnaissance missions at two locations in South Korea; and launch weather and toxic dispersion support (including an opportunity to be on television as the mission weather officer while stationed in California). I served as the commander for a forward deployed fighter wing in Europe, director of operational wartime readiness in South Korea, and director of the Air Force Weather training division and software applications branches in Omaha, Nebraska. My final military job provided many challenges as I conducted classified operational analyses at the Pentagon.

## **How would you describe your current job and how is it different from a forecasting job and other jobs you've had?**

For the last 5½ years, I've enjoyed a fantastic job as a systems engineer with Noblis, a nonprofit firm. Noblis operates solely in the public interest, with a corporate mission and purpose to provide independent, objective support to government agencies as they apply technologies and scientific principles to their mission-oriented needs. My responsibilities have grown with my expanding role for three Line Offices of the National Oceanic and Atmospheric Administration (NOAA). I work with federal and state clients to identify, document, validate, and satisfy requirements for the next generation of environmental satellites. I also support efforts to identify requirements for possible exploitation by commercial providers. I assist the National Weather Service as it develops policy and operational implementation processes and provide programmatic support for a Congressional-directed NOAA-EPA National Air Quality Forecast Capability. In addition, I provide business planning and program management, and lead technical outreach for the Joint Center for Satellite Data Assimilation, a NOAA, National Aeronautics and Space Administration (NASA), and Department of Defense partnership. In 2004, I helped plan, organize, and coordinate a very successful National Centers for Environmental Prediction (NCEP) and DoD-sponsored symposia celebrating "50 Years of Operational Numerical Weather Prediction", as well as a highly successful Mid-Atlantic Winter Storms Conference. While it's not forecasting, I've used the analytical and technical skills I acquired earlier in my operational career to energize my current position.

While at Noblis, I earned a second M.S. degree in Technology Management from George Mason University (Beta Gamma Sigma International Honor Society), as well as a Chief Information Officer (CIO) University Certificate. I also chair the American Meteorology Society (AMS)



**Figure 1. Ken Carey speaks to Weather Camp high school students hosted at Noblis.**

Board for Private-Sector Meteorologists and the National Weather Association's Remote Sensing Committee; these volunteer positions are extraordinarily fulfilling both professionally and personally. Last but definitely not least, I've been fortunate to be a part a NOAA-funded, Howard University hosted Weather Camp for the last seven years. High school students have visited Noblis each year to enjoy informative, wide-ranging, and interesting discussions on everything from global climate change to air quality. We've also enjoyed an interactive and fun game of Weather Jeopardy! Figure 1 is a picture taken during our 2007 Weather Camp.

## **Is forecasting the weather part of your job anymore?**

No, although a small group of us have volunteered to be part of a company Severe Weather Alert Team (a.k.a., "SWAT") that provides forecasts of weather that might impact Noblis' Metropolitan Washington, D.C. work sites. Earlier in my Air Force career, I worked shift producing operational forecasts for military missions, and later as the person with the final say

on forecasts for sensitive military missions supporting wartime and humanitarian missions. My day-to-day job now is part technical (improving delivery of NOAA air quality forecast guidance), part scientific (enhancing data assimilation performance), part budgetary (developing capital planning tools and guidance for air quality programs and strategic satellite acquisition decisions), and part people-oriented (coordinating and planning outreach activities to attract data assimilation scientists and interacting with federal, state, local, and international air quality forecasters).

### **What would you say to those interested in working in the private sector?**

This is an exciting time to be in our profession! There are more jobs now, especially “non-traditional” forecasting jobs, than ever before. If you don’t know how to network, find someone who is willing to help you (contact our AMS Board for Private-Sector Meteorologists at [BPSM@ametsoc.org](mailto:BPSM@ametsoc.org) for more information). Invest time and energy with a mentor and find someone who you can mentor. Take the most challenging jobs and don’t be afraid to fail...you actually learn the most by failing and learning from your mistakes. Seek out and take opportunities to improve your speaking abilities on subjects you enjoy [see Figure 2 where I spoke on mentoring at the Chi Epsilon Pi (meteorology) honor society at Embry-Riddle Aeronautical University in Daytona Beach]. Try to excel at your present job and let tomorrow take care of itself. My final words of wisdom are those that I received at one of my first jobs: “Do as many things as you can, as well as you can, for as long as you can.”



**Figure 2. Ken Carey is pictured with students after guest speaking as part of the Embry-Riddle Aeronautical University Chi Epsilon Pi Honor Society Banquet.**