# AWOS and the Current State of Affairs

By Steven Callahan

Ever since the first certified Automated Weather Observing System (AWOS) was installed over 25 years ago these systems have provided invaluable information to pilots, meteorologists, and flight dispatchers to monitor weather conditions, prepare forecasts, and plan flight routes. As the FAA states, "Since the early days of aviation, the taking and dissemination of surface aviation observations has been an essential function for safe and efficient flight.

Bing

The cost of personnel and material limits the availability of (weather) stations and it has been increasingly practical to automate many observing functions. The need for additional weather sources spurred production of several automated systems, one of which is the AWOS." Over the years the total number of AWOS systems installed in the field has grown to well over 1,000; however, it has become increasingly difficult to install new AWOS equipment due to reduced funding, stricter cost/benefit analysis requirements by the FAA, and VHF frequency congestion.

Strong economic growth that funded several statewide AWOS initiatives now seems like a thing of the past as we continue to climb out of a slump in the economy. Federal and state funding has been limited and many local municipalities struggle to come up with their local match for proposed airport improvements. The communities that are able to fund their local match often have difficulties paying for the ongoing maintenance that is required.

During tough economic times it becomes even more important to prioritize projects due to limited financial resources but we can't forget how important AWOS systems are to safe operations at airports. This includes not only investing in new systems to provide weather information in areas that currently have no reporting capability but also budgeting funds to keep existing systems in top operating condition. According to Geoff Bing, Director of Government Programs at XCELAR, "Many airports and states have invested significant funds to establish an AWOS program. Although most AWOS will perform reliably for many years, it's critical to continue to invest as equipment ages. In addition to AWOS maintenance, airports must realize that as equipment ages, it may be more difficult or costly to maintain. By planning for AWOS upgrades or replacement, your airport can continue to provide the level of all-weather access that an AWOS offers."

To make the most out of your AWOS investment, Marilyn Wulfekuhler, co-founder of anyAWOS says it is important that the weather also be reported nationally to the FAA, where it is then available to DUATS, Flight Service, and Internet weather sites. "Multiple technologies can be used to make the best and most cost effective use of whatever infrastructure is available, at even the most remote airports," said Wulfekuhler.

Wulfekuhler

In recent years, the FAA has made it more difficult to receive federal funding due to stricter cost/benefit analysis requirements. It seems that justifying a new AWOS installation, in the minds of the FAA, is a lot tougher than it used to be. It is important for airports to work closely with their consultants or state aviation staff to understand these requirements and the true economic benefit to an airport that an AWOS provides. According to Christopher Snyder, Project Director for Woolpert's aviation design

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services, "Our Aviation Clients continue to show a strong desire and need for Automated Weather Observing Systems. Our industry needs to continue to develop this type of support infrastructure that improves the safety of flight, improves the utility of the airfield, and will support the next generation of navigational systems. The benefit to costs and policy standards need to be better and more quickly understood without restricting these basic, yet critical airport improvements to simply tell pilots what exactly the conditions are on the airport."

Petragnani

AWOS systems, depending on their configuration, broadcast weather observations on either a discrete VHF frequency or over the airport's existing Unicom frequency. In some cases an AWOS system can broadcast either way. The best solution varies from airport to airport and depends on what an airport's individual needs are. However, in recent years, both solutions are becoming more difficult to manage. For example, Ralph Petragnani, Director of Sales and Marketing for Belfort Instrument, states that "In the Northeast the FAA has said that any installed AWOS AV will not get a discrete frequency. That's a problem because in New Jersey Belfort has 15 airports with AWOS AVs and they all wanted a discrete frequency.

The FAA has told us that there are 8 Unicom frequencies available for airports and they suggest that instead of asking for a discrete frequency that the airport change its Unicom frequency so as not to interfere with an airport close to them." The frequency issues can be complicated and extremely time consuming to work out so it is important for airports and state aviation staff to work closely with their AWOS provider and/or consultant to navigate through the VHF licensing process.

Despite some of the financial and project management challenges associated with getting new AWOS systems installed, the economic benefit to airports and the increased level of safety provided to the flying public outweighs the logistical burdens more times than not. Therefore we need to keep this type of airport infrastructure in mind when prioritizing our limited resources and considering how to best gain a long-term benefit in return.

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# Rouelle Named Vermont Aviation Administrator

Guy Rouelle, Interim Aviation Program Administrator for Vermont's Agency of Transportation since July 7th of this year, was named August 22nd, to permanently fill the top spot replacing Rich Turner.

Rouelle

Rouelle said his biggest challenge in his new position will be marketing the state's airports and their economic necessity to the public. Rouelle said the combination of GA and commercial aviation, adds a great deal of revenue to Vermont's airport system. "We need to be better at marketing airports," said Rouelle, but "I am excited by this challenge."

Vermont is one of the most beautiful states to fly in according to Rouelle, a 5th generation Vermonter. "I have logged thousands of hours over Vermont and landed at not only the 16 public-use airports, but a good share of the 165 privately owned, private-use airports."

Rouelle developed his interest in aviation by reading books, building airplane models and listening to stories his Uncle told him about the gull-winged Corsair that provided air support for his Marine Company during WWII.

"People fire me up," said Rouelle, "Their enthusiasm for their aircraft, the airspace above them and the airports they operate from."