There's no question that unmanned aircraft systems (UAS, replacing the former UAV acronym) are coming to the NAS. The name change, from unmanned aerial vehicles to unmanned aerial systems, reflects what the machines are all about, since UAV didn't properly recognize that in future configurations the ground control element would be as essential as the airborne part.

And let's leave the word "drones" to the popular media. In the animal world, drones are generally lazy, unproductive and die off quickly. In aviation, UAS will have some important roles to play, many of them dull, dirty and dangerous, which also includes saving lives.

For some years, of course, UAS such as the Global Hawk and the Predator have been operational with U.S. and allied militaries, with some experts forecasting that future armed forces will field mixed operations, split approximately equally between manned and unmanned aircraft.

NAS Integration

But civil UAS demands will be quite different. Consequently, the FAA is moving toward NAS introduction in a three-phase program, described by Randy Willis, air traffic manager of the FAA's UAS Integration Office, AFS-80, at a November conference in Ottawa hosted by Unmanned Systems Canada. In the first phase, regulators must address these questions about unmanned aerial systems: How well can they be accommodated with other civil traffic? How airworthy must they be? How safe will they need to be? What rules should apply to them and their operators? With those and related questions answered, the second, mid-term, phase-initial transition to NAS integration-can commence. Following that, the third, long-term, phase of integration into the NextGen NAS will get under way. At this time how long that will take is unforecast, but it will certainly take several years.

The first phase includes the establishment of six test sites at selected locations where candidate UAS will be subject to rigorous technical and operational evaluation. The February 2012 FAA Reauthorization Act anticipated that selection and testing commencement would occur in mid/late 2012.

However, AIN has learned that public fears and privacy concerns about being regularly spied-or crashed-upon by errant UASs had become much more widespread than anyone ever imagined, and some high-ranking politicians were feeling the heat from their constituents, delaying the program and causing the FAA to feel it has to proceed carefully.

One industry executive told AIN he believes that the privacy issue is unlikely to be resolved much before year-end. But he and other informed observers, including senior government officials, believe that without positive political action and appropriate legislation to counter the public's "drone phobia," delays in launching the UAS program could jeopardize current U.S. leadership in what is viewed as a multibillion-dollar world market. In the current economic climate, they feel, that's a risk we shouldn't take.