CHAPTER 5: WORKING TOWARD THE NEXT GENERATION OF DISSEMINATION DEVICES…AT GLACIER SPEED

Peter Ward, who chairs the board of trustees of the Partnership for Public Warning, cited an interesting anecdote concerning the future of all-hazards warning devices. "At a recent NOAA Weather Radio conference where I lectured, no one in the room had a weather-radio receiver with them, but 50 percent had cell phones. These were National Weather Service employees promoting NOAA Weather Radio! They also agreed with me that even if a Weather Radio warning receiver could be built into something the size of a quarter, people would still not carry it for years and years. But if it were built into their wrist watch, cell phone, palm pilot, hearing aid, etc. which they use regularly, then you have market penetration."[255]

Ward and other disaster-preparedness professionals have for years been impatient for dissemination systems to catch up, and keep up, with technological innovation. A broad federal study of modern all-hazards warning options, *Effective Disaster Warnings*, published in November 2000, was prescient in its call for effective harnessing of dissemination capabilities that technology would soon promise. The report stated, in part:

> The greatest potential for new consumer items in the near future is development of a wide variety of smart receivers and the inclusion of such circuits within standard receivers. A smart receiver would be able to turn itself on or interrupt current programming and issue a warning only when the potential hazard will occur near the particular receiver. Some

[255] Ward, Peter. Email to the author. 8 October 2002.

> communication channels where immediate expansion of coverage and systems would be most effective include NOAA Weather Radio, pagers, telephone broadcast systems, systems being developed to broadcast high-definition television (HDTV), and the current and Next Generation Internet.[256]

There are signs that technological breakthroughs will soon make more possible than ever the dream that such "smart" all-hazards receiving devices can at last reach the consumer market. This past spring, researchers at the University of Florida demonstrated a wireless communication device, including a miniature radio transmitter and antenna, built entirely on a silicon chip.[257] The San Jose *Mercury News* reported that since then, "dozens of small start-up companies are competing against giants like Intel and Broadcom to develop these crucial chips, which could represent a market worth almost $1 billion by 2006."[258] Ward said of the recent microchip innovations, "This is where the pedal really hits the metal for NOAA Weather Radio."

The main impediment to a new generation of all-hazards warning devices is the lack of federal-government leadership—improved regulations, and clear standards and protocols that could create a favorable development environment for melding new technologies with existing all-hazards dissemination systems, such as NOAA Weather Radio—a situation that Ward says PPW is "working hard" to get the Bush administration to address.

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[256] National Science and Technology Council, Committee on Environment and Natural Resources. *Effective Disaster Warnings: Report by the Working Group on Natural Disaster Information Systems, Subcommittee on Natural Disaster Reduction*. November 2000. Pg. 36.

[257] Lyman, Jay. "'Radio on a Chip' Debuts." *Newsfactor Network*. 30 May 2002. 17 Nov. 2002 <http://www.newsfactor.com/perl/story/17990.html>.

[258] Poletti, Therese. "The Next Frontier in Chips: Start-ups Compete Against Giants Over Market with Stake of Over $1 Billion by 2006." *The Mercury News*. 28 October 2002. 17 Nov. 2002 <http://www.bayarea.com/mld/mercurynews/business/4386639.htm>.