bit 2002

bureau of inverse technology

BIT RADIO service

sample installation

bureau of inverse technology [BIT] new york new york, feb 07 2002 02:46:41 -0500 (EST)

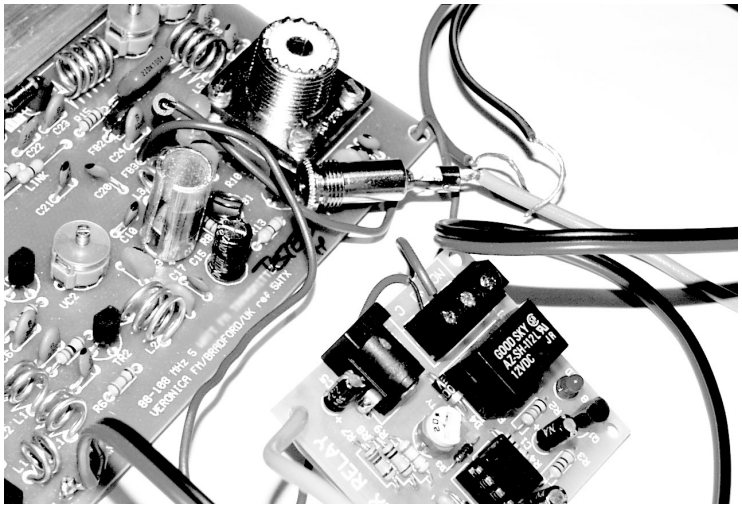
Bureau developed a number of information products to provide accurate information for the **World Economic Forum** meeting at Waldorf-Astoria, New York City Feb 01-04 2002. These projects manifest technical strategies for inserting local information into global debates.
A special BIT RADIO OVERCAST service for the World Economic Forum was deployed to break in over NPR member station WNYC FM 93.9 and deliver useful information. With BIT AUTOPIRATE transmission equipment installed on rooftop location in Waldorf vicinity, this system will transmit realtime air quality data for lower Manhattan, obtained from WTC fall-out monitoring. A one-second alert will break in clearly over normal station programming when either asbestos, dioxins or particulates fluctuate over the EPA set level.
FIELD REPORT: Bureau engineers reported successful broadcast from 13:00h to 20:00h daily Feb 02-03, perimeter reach around 1200m. Failure analysis: estimated percentage of WEF delegate tuning to NPR radio at any time over the 4-day summit approximated at 4%. Although chance of delegate encountering information from direct street action protesters is estimated as even lower, less than 2%, due to drastic police street isolation tactics around the conference venue.

the bureau is an information agency servicing the Information Age

for other BIT devices and designs see:
http://bureauit.org/data/release
http://bureauit.org/data/radio.html
http://bureauit.org/data/BANGBANG.html

BIT RADIO SERVICE

BIT [bureau of inverse technology]



DESCRIPTION: Radio break-in service for local area news. This AUTOPIRATE system broadcasts event-triggered, intermittent news on neighbourhood FM. Selfbuild. Developed for instant publication of live gunfire audio on local radio; adaptable for other alerts and events of interest.

A BIT product in development.
The bureau is an information agency servicing the Information Age. http://bureauit.org

BIT [bureau of inverse technology]

STOCKHOLM Feb 2002

Report on developmental engineering of the **BIT News Interruption Service**, a BIT sound-emitting system for neighbourhood installation. This AUTOPIRATE device will transmit live news alerts over local radio.

FUNCTIONAL DESCRIPTION

BIT RADIO unit consists of a low-power FM transmitter, sensor-modified to monitor realtime information. When the sensor detects an event, the unit powers up to transmit live audio for the event duration. [Average length of BIT item news is 2-50 seconds, adjustable to event parameters]. BIT RADIO transmitter is tuned to break in clearly over conventional FM radio, for rapid information delivery to established audiences. When the BIT news has been delivered, transmitter powers down automatically and normal scheduled programming will resume. NB. this frequency sharing strategy does not assume collaboration of the host/carrier FM station.

BITCASTING

BIT RADIO delivers bullet-point news for the public airwaves. MICROINTERRUPTION strategy economises disturbance to regular radio programming, while maximising BIT news reach to established radio audiences. The system is designed to supply realtime, data-driven news such as live gunshot audio, intersection slam reports, air quality data, & other alerts and events of interest.

woolloomooloo sydney

bit radioegineer's report for STANDARD INSTALLATION
filed charlotte north carolina, wed feb 13 2002 19:12:15 -0500 (EST)

RESOURCE LIST

EQUIPMENT 5W FM transmitter [BIT-modified] http://nrgkitsfm.com/radiokits/5wattfmst.htm
Audio sensor [BIT-modified] http://www.electronic-kits-and-projects.com/3126.htm
Coaxial cable [RG213/50 ohm]; tunable dipole antenna [see diagram]; 13.8V/5A regulated power supply.

SIGNAL News feed consists of either a) sensor-driven event such as burst of realtime audio monitored from event location; or b) system generated report - beeps or vocal.
Optional news reader on pentium II, festvox synthetic voice don, british male http://festvox.org/index.html [gnu/gpl], interprets incoming data.

AUTOPIRATE System is fully weather proofed, crash-protected & can remain on service for periods for 2-3 months for sustained, low-maintainance application.

RANGE dependent on tx power and aerial elevation.

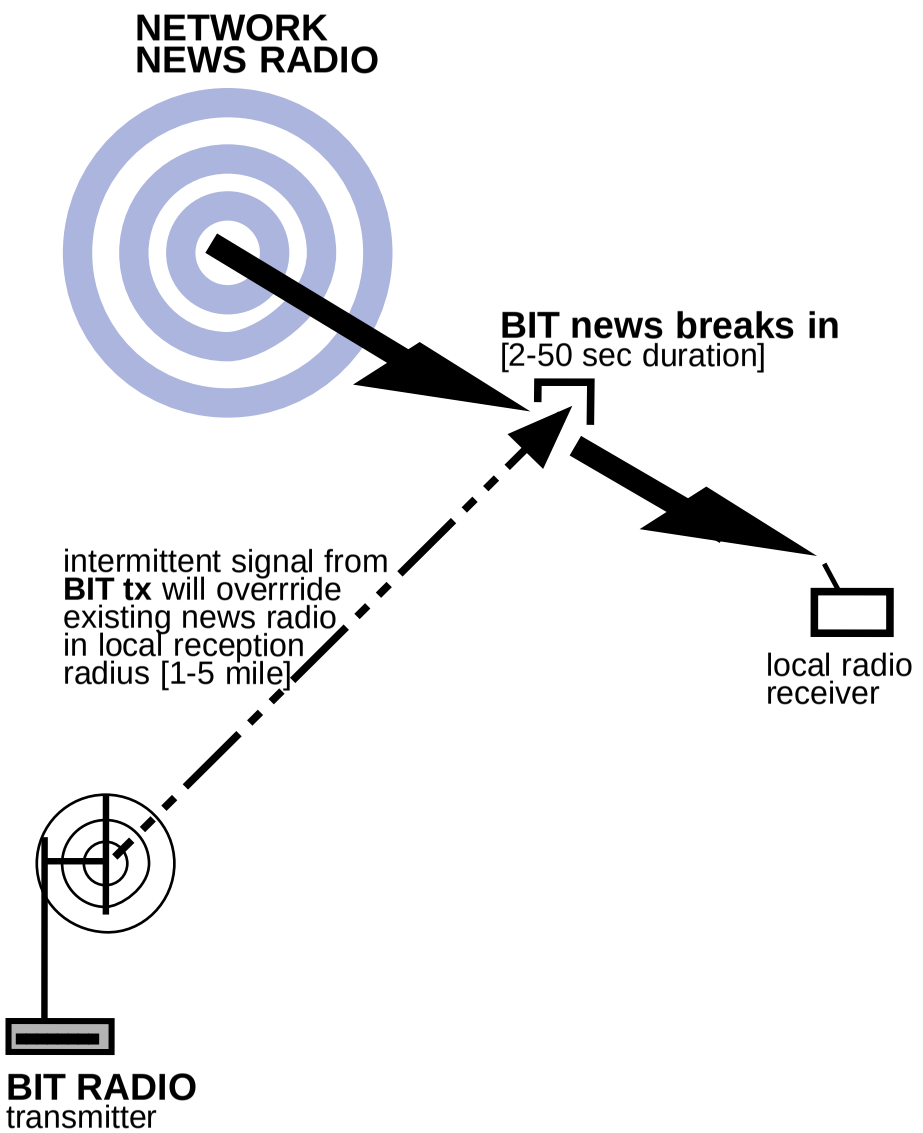
PERIMETER REPORT bureau engineers calculate reception range for standard BIT RADIO unit as up to 3km line of sight. Clarity of reception will vary with listener proximity to the broadcast position.

SECURITY System design protects BIT broadcast hardware from detection interference in several capacities. **- 1** the station is functionally off-air more than 95% of time, making signal difficult to trace or triangulate ¯ ie. the station only "exists" electromagnetically during the transmission of each data event. **- 2** format: BIT news is transmitted in raw information form - live location sound actuality or verbatim data reading - reducing recognition by deterrence forces trained in longplay, music or talk radio shutdown techniques **- 3** placement: initial art world positioning of BIT RADIO units selected by the bureau for marginal informational impact.

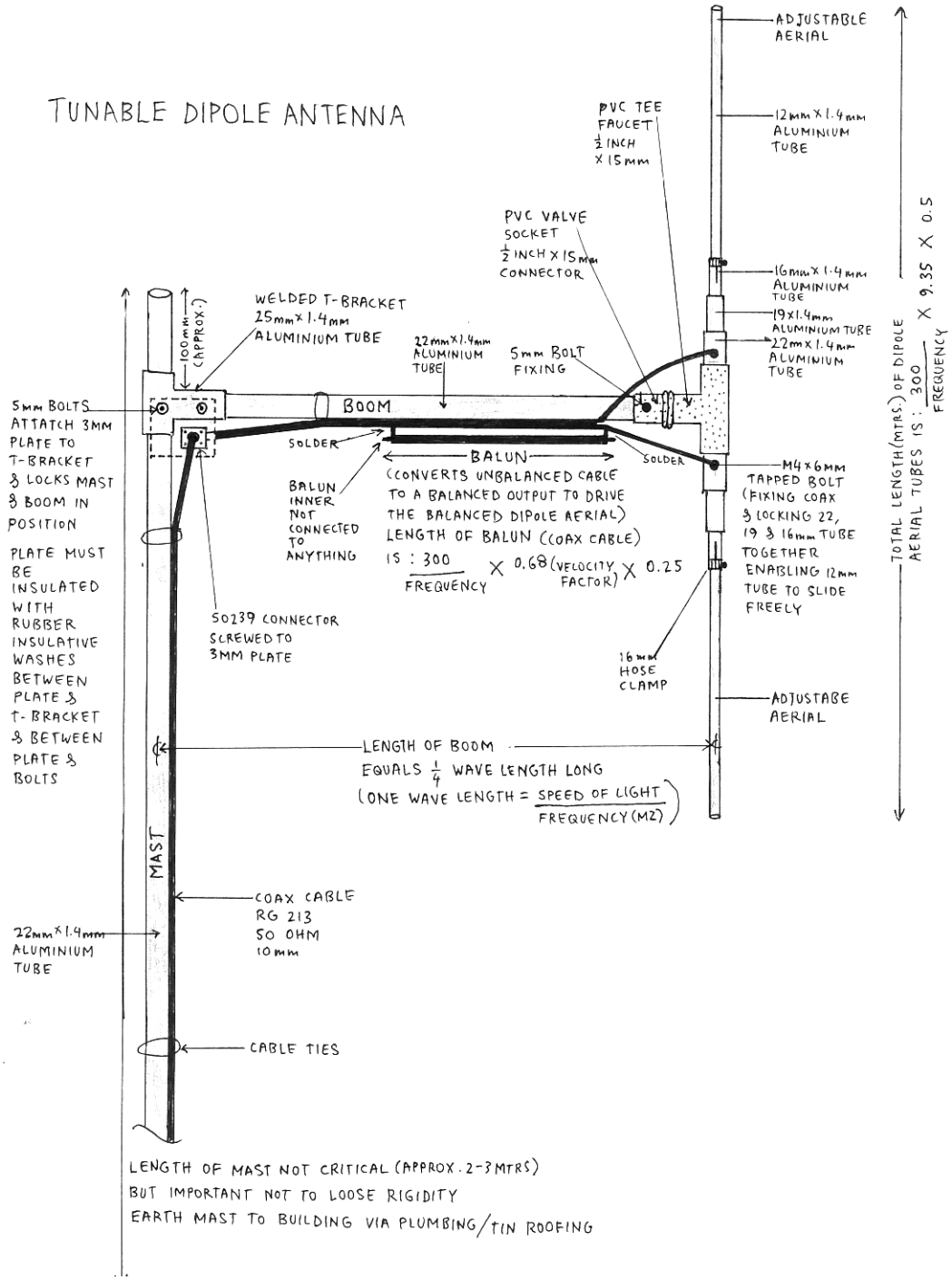
KITIFICATION Bureau will release BIT RADIO in kit form for future DIY application.
Kit to include radio selfbuild materials, range of sensors, software support & instructional packaging. News values to be determined by the user[1].

LINKS

For clarification of the notion of the airwaves as a scarce resource see http://www.fcc.gov/Speeches/Kennard/2000/spwek022.html [details FCC role as bandwidth conservationists].
More preventative information at http://www.aba.gov.au/radio/investigations/index.htm [Australian Broadcast Authority]; http://www.radio.gov.uk/topics/enforcement/enforce-index.htm [Department of Transport and Industry UK]; http://www.grn.se [Granskningsnämnden för radio och TV, Sweden]. For more radio piracy please see http://www.irational.org/sic/radio



diagram



antenna schematic

see also:
http://www.nrgkitsfm.com/workshop/half_wave_dipole_aerial.htm
http://www.freeradio.org/rsrc/img/DIPOLE.GIF

http://bureauit.org