

Communications in Cyberpunk

by Dan Bailey

Purpose:

The purpose of this article is to give you an idea of communications in a cyberpunk world. It will cover transmission formats, and the mediums of communications, both mass and personal.

Introduction:

Welcome to the world of the MediaGods. By 2010, there was no corner of the Earth untouched by the communications network -- it was even possible to call Minneapolis from a wristphone while standing atop the South Pole. By 2025, it will be possible to call the colonists on Mars.

It is impossible to escape the noise that permeates the electromagnetic spectrum, no matter where you go in the solar system. We've been transmitting constantly for almost 100 years now...that's a sphere 100 light years in radius that expands away from the Earth. By now, chances are, someone's heard us.

One cannot walk the street without seeing FaxNews terms, dataterms, television screens, holotubes, computer screens and neural jacks, hearing radio (be it digital, analog FM, shortwave, or whatever), or getting fed some sort of line from a media source, be it mainstream or pirate.

Transmission Formats:

- **SATCOM:** The best of the communications network, satellite communications has skyrocketed in the past 30 years, with the initial efforts of Motorola's Iridium system and the later efforts of mass-media conglomerates. SATCOM is not typically used in ground-to-ground communication, except for extremely long distances. It is used for connecting mobile, orbital, and trans-oceanic/-planetary communications. Unfortunately, the bandwidth of SATCOM is limited -- there is enough to meet all of today's communications needs, but it will be rapidly filled in the near future. The biggest user of SATCOM is the military, due to their highly mobile nature, and corporations are a close second using the system for high-speed conferencing, both neural-interfaced and video. SATCOM has the added bonus of being hard to eavesdrop on, due to the tight-beam transmissions. The Difficulty is VERY DIFFICULT without without the right equipment and expertise. All military comms is encrypted and the keys change daily. Corporate comms is sometimes encrypted, but it depends on the paranoia level of the corporations involved...
- **FIBERLINK:** The fiberoptic network is the backbone of the Net. It has blazingly fast transmission rates, around 15 terabytes (15 trillion bytes!) per second! This is where the bulk of the data communications takes place -- computer data, cable TV and "radio," and most telephones all use FIBERLINK. FIBERLINK will support all of the common communications needs of the entire 21st century with ease. EISDN (Enhanced International Standard Network) Protocol has become the agreed upon format, despite the fact that a wide variety of companies own the fiberoptic cabling.
- **RADCOM:** Radio communications is the link between FIBERLINK and SATCOM, and is responsible for the glory of the Net. RADCOM covers things like cellular phones, true radio and television stations, and what few VR stations are left.
- **WAVECOM:** This is a newer form of data transmission that uses the shortwave radio band. It requires both special gear and licensing, even in 2020. The users call themselves *Packeteers*. WAVECOM has a low data transfer rate, so data must be sent in compressed bursts. Due to the low speed

and unreliability of WAVECOM, any net operations take place at -5 to any rolls or skill levels, but not both. This Matrix is only for the best of the console cowboys.

Any netrunner can access this net as long as their deck has WAVECOM capability (a 3000eb upgrade).

WAVECOM commo is relayed crosscountry by booster stations and can be intercepted on a roll of 1 or 2 on a D10.

- **WIRECOM:** There are still remnants of the old phone and cable television networks all over the world and they're still in use for some purposes, mostly pirate media. There are some links from the Net to WIRECOM, but netrunning on them is a pain in the ass -- you can run in VR mode, but not in neural-interface, and even in VR, you suffer an additional -2 to all rolls. (See Chromebook 3 for information on netrunning in VR). WIRECOM can be tapped quite easily...it's an EASY task.
- **Print Media:** Believe it or not, print is NOT dead! Novels are still available to the diehard antique collector, and newspapers are still alive and well in the lower Americas, Africa, and the Soviet Union.

Mass Media:

- **Television:** The top of the pantheon, television is still the King of the MediaGods. Most of it rides FIBERLINK, but it still rides on RADCOM and SATCOM as well.
- **Virtual Reality:** Virtual Reality is just about dead. By the time the prices on systems were coming down to a decent price in the range of most consumers, neural interfacing was available and TV prices were so low that it became easy for anyone to afford. VR is available over WIRECOM and FIBERLINK.
- **Radio:** Mostly rides RADCOM, but there are a number of stations that simulcast on FIBERLINK and SATCOM. In RADCOM, typical broadcasts are in FM, AM, or digital.
- **Newspapers:** Mostly available on the Net, but some diehards still hit newsprint daily. Newspapers are still common in the lower Americas and in Africa and the Soviet Union.
- **Magazines:** It's gotten to the point where the only way to profitably publish a magazine is on the Net. Some, like *C*, still print to paper, though.

Pirate Media:

- **Television:** Pirate television typically rides the old WIRECOM system, FIBERLINK, or RADCOM. Pirate TV channels are typically wiped out by the larger mediacorps who hate any sort of competition.
- **Radio:** FM radio is where most of the pirate media resides. RADCOM and in some rare cases, FIBERLINK, is the medium of transmission for pirate radio. Most major metropolii will have about 2 dozen pirate radio operators at any one time (roll 4d6 for a number).
- **Newspapers:** There are still pirate newspapers out there -- throwbacks to the 1960's. They can come in printed form (usually on cheap slices of plastic) or in FaxNews format.

In Closure:

Some of this article was adapted from Interface magazine (which is now defunct). In all likelihood, I will HTMLize the information provided in the magazine...

-- Dan