Space Aliens Land, Threaten Global Destruction

Detroit: "Little green men" land and complain about noise

Space aliens landed simultaneously in all of the world's major cities at about 3:25 EST this morning. Citing excessive radio noise on Earth's part, they proceeded to spraypaint a hexagonal lattice onto the cities from low-flying spaceships. A spokesbeing for the aliens then demanded that all of Earth's radio transmitters be relocated to the center of one of the hexagons and retuned by one month from today. If the transmitters are not relocated and retuned by then, the spokesbeing threatened to destroy the Earth.

In response to widespread human protest, the spokesbeing, who said his name was "Jymyzzach," which loosely translates to "Jared the Terrible" in English, defended the aliens' actions.

"Listen," he said "You humans are using many times more bandwidth than you need and you still manage to have interference and bad reception in some places. My people are astronomers: We survey the furthest reaches of the cosmos for clues as to the secrets of the universe. Whenever we look at the side of our sky that contains your planet, all we can see at all radio frequencies is this huge, brilliant ball of noise, noise, and more noise."

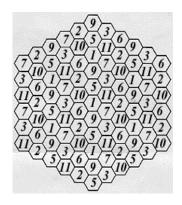
"And your taste in music is deplorable," added Jared, displaying a falsecolor radio image of "The Macarena."

Jared explains the need for assigning frequencies as follows: "Basically, what we decided was that to reduce the noise from your planet, you need to keep the range of frequencies of your channels to a minimum. With the hexagonal lattice proposed, you can cover your cities with signals that do not interfere. So you'll have clear, crisp signals, and you'll hear what you want to hear. We even accounted for your inferior technology in our calculations, because when your Earth-transmitters are too close together, an awful interference occurs that we cannot stand!"

"You Earthlings will get better radio reception than ever using no more than 15 channels, and my people will be able to continue our quest for knowledge. We have a win-win situation here," Jared proclaimed.

Jared also has plans for rural and other areas that the aliens have not divided into hexagons. "It's hard to make up a small set of rules for maximum bandwidth reduction when radio transmitters are randomly distributed, but with some thought and some computation you can drastically reduce the bandwidth used by these scattered transmitters."

The UMAP Journal 21 (3) (2000) 387–388. ©Copyright 2000 by COMAP, Inc. All rights reserved. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice. Abstracting with credit is permitted, but copyrights for components of this work owned by others than COMAP must be honored. To copy otherwise, to republish, to post on servers, or to redistribute to lists requires prior permission from COMAP.

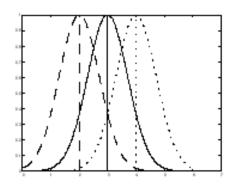


The aliens' transmitter restructuring plan.

When pressed for details, Jared explained his scheme for the unpartitioned areas. "You start by assigning each transmitter a number. You set transmitter number one to channel one. Then you set transmitter number two to channel one and see if it interferes with transmitter number one. If it does, you set transmitter two to channel two and check again for interference; but if it doesn't, you leave transmitter two at channel one and move on to transmitter three. By repeating this process until all transmitters have channel numbers assigned so that none of them interfere, you can get good coverage at pretty low bandwidth."

"When I say that two transmitters interfere, I mean that they can both be heard clearly on the same channel on a radio somewhere. If you draw circles around two transmitters set on the same channel to mark the places where they're just barely audible, you can tell whether they interfere or not by whether those circles intersect. Unfortunately," he continued, "transmitters don't broadcast just on the channel they're set on. They also broadcast a little bit on every other channel, so two transmitters can interfere even if they're set on different channels. You have to take that effect, called 'spectral spread,' into account when you're looking for interference."

Before departing, Jared ordered one of the alien spaceships to destroy the moon. "Just to let you know we're serious," he explained. President Clinton could not be reached for comment.



Different transmission channels interfering.

— Christopher R.H. Hanusa, Anand Patil, and Otto Cortez, in Claremont, Calif.