

## Bill Rea ? Positive stuff out there

Befitting the fact I was born just after space exploration started, and that I was around to see the space race, I was intrigued with the announcement last week that habitable planets might not be too far from Earth.

When I say 'not too far,' I am of course thinking in terms of distances that are relative to the entire universe, which according to the best information most of us have, could be endless. In this case, we're talking about almost 40 light years.

I was a little boy who was in awe at the thought of Ed White walking in space, and there was a big knot in my almost-nine-year-old stomach when I heard he had been killed in the Apollo 1 fire. And I was enthralled, like everyone, when the Eagle landed in July 1969.

Like so many others, I have often looked into the night sky and wondered what was up there. I still do sometimes. I hope I do many more time before I die.

I have watched too many Star Trek episodes (all of the Original Series episodes umpteen times) not to imagine the possibilities of life beyond our little planet.

Granted, the announcement made last week does not guarantee there's life out there, but the possibility has certainly not been ruled out. The information we have right now is it might be possible for water to exist in liquid form on some of these planets, and if that turns out to be the case, then it looks like life, as we know it, could exist there. But nothing has been determined, yet.

And when we talk about something involving the vastness of space, I would submit the possibilities are endless. One of the news accounts I read last week quoted an expert stating there are some 200 billion stars in this galaxy. So when it comes to exploring space, I'm not sure we humans have even yet scratched the surface.

So while I found last week's announcement a source of hope, I don't think it's going to change much, certainly not in the short term. Remember, we're talking about something that's some 40 light years away. That means it would take 40 years to get there, if one can figure out how to travel at the speed of light. No one has ever come close to going that fast, despite what some observers might think about the way some people drive on Highway 10. Indeed, there is considerable scientific evidence that maintains travelling at that speed is impossible ? or is it simply a case that no one has yet figured out how to do it? Trust me, the people who assert the loudest that it's impossible to travel faster than the speed of light will never find a way to do it.

The speed of light, according to what my late father told me years ago, is about 186,000 miles per second. When I was in high school science class, I was told that works out to roughly 300,000 kilometres per second. We've been told the sun is approximately 93 million miles from the earth. Do the arithmetic, and learn it takes a little more than eight minutes for the light from the sun to reach the earth (I remember reading that when I was in Grade 2).

The seven planets that have been found are orbiting a small star called TRAPPIST-1, and apparently it's about the size of Jupiter. Assuming these planets have been discovered recently, no one on this planet has any idea what they look like today. The best we can get are insights as to what they looked like about 40 years ago, around the time I was wrapping up high school (we had a prime minister named Trudeau in those days).

The whole point is although these planets have been discovered and we know they are there, it's going to take a while before anyone pays a visit.

Those of us who have been following space exploration will recall the Mercury space crafts used to orbit the earth at roughly 17,500 miles per hour.

Again, do the arithmetic. Travelling at that sustained speed to the planets around TRAPPIST-1 means one is still looking at a journey that will take about 1.5 million years.

That kind of puts things into perspective, doesn't it?

That's the reality, but let us not rule out the fantasy.

All four of my grandparents were born in a time when there were words of wisdom that maintained that if people were meant to fly they would have wings, yet all four of them lived to at least see the start of space exploration, and one of them saw all of the Apollo moon landings (I recall my grandmother followed them with some interest).

So I consider what people born late in the 19th century lived to see, and how fast things progressed during their time on Earth. I consider what I have seen. This column is being written on my laptop. If my father had seen me working on a thing like this 40 years ago, I think his first words would have been 'What the hell is that?'

At my age (pushing 60), I realize there are a lot of things I may or may not live to see, like a manned trip to Mars or people returning to the moon, although I have not given up hope. I know I will never be part of such trips. But I can dream of what coming generations might accomplish. And I can appreciate that progress is a little more realistic when there's a tangible target at which such

efforts can be aimed.

Well, we just got seven more targets handed to us, and there's the rest of time to see where that effort goes.

I know I will never live to see the final results (no one, living or yet unborn, ever will), and I'm frankly jealous as hell when I think of what I'm going to miss.

