

YOU SAY

If life exists in galaxy . . .

WITH reference to "It's UFOs galore over Yorkshire" (YEP, July 20) . . . after reading the report, I would be very interested to know from the Yorkshire or any other UFO Society, as to what they attribute these phenomena (to unexplained natural events or to the activities of extra-terrestrial beings?).

If the latter, I wonder if they have considered the following points?

Planetary systems are thought to be fairly common in the galaxy, and presumably, the universe, as it is now thought that they may be a by-product of star formation from the inter-stella clouds of gas and dust.

★★

It is also now known that these same clouds contain a percentage of carbon compounds, which are necessary for living organisms. One may, therefore, reasonably assume that, given a suitable environment, life must occur with a fair probability throughout the galaxy and beyond. But:

When one is contemplating the existence of an extra-terrestrial civilisation, such as ourselves, several important factors enter the equation, namely:

(1) One requires the planetary system to have a single star (many stars are double or multiple and are not suitable). It would need to be a stable star (many are variable to a greater or lesser extent) and they should not be too small or too large (not more massive than approximately 1.4 times that of the sun, otherwise there will not be enough time, before the star becomes unstable as its nuclear energy comes to an end, for life to develop).

(2) Suitable stars have round them a habitable zone where temperatures would not be too extreme and if a suitable planet (about the radius and mass of the earth) is within that zone, one would expect the right conditions to prevail; unfortunately, it does not necessarily follow that such will be the case.

(3) It has been calculated that extra-terrestrial technological civilisations, if they do exist, would be on average some 1,000 light years apart in the galaxy, which means that if such a civilisation were able to build spacecraft capable of travelling virtually at the speed of light (it

would be impossible actually to reach the speed of light — almost 300,000 kilometres per second — because it would require an infinite amount of energy to do so) it would take a one-way mission more than a thousand years to reach its destination (the spacecraft would have to be accelerated and decelerated which would take time) leaving out other factors such as:

Sun-like stars become invisible except in a telescope at distances of more than a few tens of light years.

Stars are moving relative to each other at velocities of some tens of kilometres per second, and a star that might be hundreds or thousands of light years distant is not seen in the position that it actually was when the light that it is now seen by was radiated by the star hundreds or thousands of years previously.

When the spacecraft was close to the speed of light, relativistic effects would make it impossible to observe the destination star or any other star in order to ascertain one's position.

★★

(4) Assuming that an extra-terrestrial civilisation does exist somewhere in the galaxy could they reach the necessary degree of competence to enable them to use their wisdom to put their technology and science to good use before they reach the crisis that we now find ourselves in — increasing pollution, declining of natural resources, the danger of starvation, or the final madness?

(5) Finally, the following may be worth thinking about (I actually believe that life must exist in the universe, for a reason not relevant to this subject):

Given the present state of the art in commercial broadcasting on VHF and UHF transmissions, which because they are not reflected by the ionosphere, travel out into space, and the present radio telescopes which could pick up such broadcasts from a planet at a distance of several thousand light years, up to the present time, no such broadcasts have been located!

T. FISHER,
Weatherhill Road,
Birchcliffe,
Huddersfield.