

## **Sky Gazing for Aliens**

### **Why in news?**

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- US government recently declassified information about “Advanced Aerospace Threat Identification Program” (AATI).

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- This has revived long subdued interests in Unidentified Flying Objects (UFO) and Alien life-forms.

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### **What is AATI program?**

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- Humanity has always been fascinated by the possibility of extraterrestrial life through unverified word-of-mouth spotting of aliens.

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- Most governments have largely been diligent in suppressing all evidences that could possibly fuel such speculative thoughts.

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- But the recent declassification of information about the AATI program and videos related to it has given good impetus for rejuvenated interest in aliens.

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- AATI was an investigative program into UFOs, that was operational between 2007 and 2012, which had documented various suspected alien movement.

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- Notably, a retired military officer who headed AATI has also come on record, stressing the need to continue investigating UFOs.

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### **How has conspiracy theories fared?**

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- Unsubstantiated conspiracy theorists are currently apleantly and overwhelmingly support the existence of aliens and their visit to the Earth.
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- UFOs got significant attention for the 1<sup>st</sup> time during the 2nd world war, when many military pilots reported sighting of saucer shaped objects.
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- Subsequently, the number of such claims increased and came from all sorts of people - even alien abduction theories were flouted.
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- Notably, “Area 51” - a remote part of the Nevada desert in the US, that houses an Air Force base, is a darling for conspiracy mongers due to its secretiveness.
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- Most conspiracy theorists believe that the Air Base is actually a cover-up for a facility to research into aliens that have either - died on Earth, been captured alive, or have come as ambassadors.

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### **What were some government initiated programs?**

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- During the Cold War era, air forces worldwide were on an eternally alert mode for the fare of possible missile attacks.
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- The alertness provided for ample sighting of flying objects, most of which were eventually identified but some does remain as yet unidentified.
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- While the western governments were more worried about Russians than about alien life, they nevertheless initiatited investigations on UFOs
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- Notable, US Air Force initiated “Project Blue Book” which began UFO investigations in 1947 and reviewed over 12,000 sightings till 1969.
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- While most sightings were concluded as stars, oddly-shaped clouds other terrestrial objects, about 701 of them remain unexplained.
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- Similarly, Britain convened the “Flying Saucer Working Party”, which also investigated UFOs and arrived at conclusions akin to the US project.

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## **What are some significant scientific works in this field?**

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  - The famous astronomer Frank Drake through his “Drake Equation” guesses that there could be considerable number of alien civilisations.
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  - In 1961, he listed the variables for determining the number of alien civilisations capable of using radio signals in the Milky Way Galaxy.
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  - Drake estimated the:

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  - rate of formation of suitable stars
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  - number of such stars with planets in orbit
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  - possible number of inhabitable planets

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  - He postulated that life might exist or emerge in future in a small fraction of such inhabitable planets.
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  - Further, he stressed that the possibility of emergence of intelligent civilisations capable of radio communication was an even smaller fraction of those planets.
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  - While his was essentially a guess work by extrapolation of data, advancements in telescopes has helped considerably to improvise space research.
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  - Notably, a large number of exo-planets perceivably conducive for life has been spotted to be orbiting stars but we’re still guessing about the other variables.

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## **What are the speculations?**

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- Considering the vastness of the cosmos, alien life is indeed very much possible and it might even be humanoid and carbon-based.

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- As thousands of exo-planets have already been identified by Kepler Space Observatory, Earth-like conditions may exist in some of these.

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- Notably, comets have been found to possess amino acids, that are key for the evolution carbon based life forms.

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- However, people like Nobel winning physicist Enrico Fermi has been critical of such hypothesis, as there is no conclusive proof of their existence.

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- While there is a possibility that aliens don't exist, there is also a possibility that they've not developed intelligence or that they're consciously lying low.

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- Also, considering the interstellar distances, if a civilisation 1000 light years away had discovered radio waves at the time we did, then their first signal would reach us around 3000 AD.

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**Source: Business Standard**

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