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"If indeed there are alien spacecraft flying around Earth with the frequency with which UFO devotees are claiming, then I must ask how come I have never seen anything remotely resembling such an object, while at the same time I have managed to see all these various other types of phenomena." Alan Hale (professional/amateur astronomer, co-discoverer of Comet Hale-Bopp)

## **Astronomers and UFOs**

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Alan Hale's words pretty much reflect the attitude and experience of many amateur/professional astronomers and explains why they tend to look on UFOs with a skeptical attitude. However, UFOlogists list some UFO reports from various amateur and professional astronomers in many of their databases indicating that there are astronomers who have seen unusual or unexplainable events. These reports are often presented as some of the most credible because astronomers are considered reliable observers based on their knowledge of the sky. Assuming that this is true, one must wonder if these observations represent some new scientific discovery or something else.

## There are amateur astronomers and there are AMATEUR astronomers

Like any hobby, astronomy is populated with individuals who have many different levels of expertise. I have known individuals who have identified themselves as amateur astronomers that could not even identify more than a few constellations in the sky. Others had little knowledge of or had never seen various phenomena like the zodiacal light or the gegenshein. It is important to note that declaring a person an amateur astronomer does not guarantee that the individual has a lot of expertise or experience in observing the sky.

I have also experienced the extremes of UFOlogy at astronomy club meetings. I remember one meeting of an astronomy club in the early 1970s, where an individual spoke to the club about alien species who were visiting the earth. I recall being rather

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open-minded at the time but his stories just sounded too wild for me and I recall some polite chuckling during the presentation and suggestions that this individual may have taken too many mind-altering drugs. In another more recent astronomy meeting encounter, I met an individual claiming to be an astronomer who wore TV remotes on his belt. When I questioned why he was wearing the remotes, he claimed that they prevented the aliens from abducting him and dogs from attacking him. My wife practically had to slug me to stop my predictable response. Instead, I politely stated that his use of such devices was interesting and we went on our merry way. As one can see, amateur astronomy can be populated by some individuals, who call themselves amateur astronomers but might be more than willing to exaggerate unusual events into something extraordinary or be unable to identify phenomena they have never seen before.

An interesting example of this occurred in 1996. It was "Amateur astronomer" Chuck Shramek, who discovered the apparent companion to Comet Hale-Bopp. Chuck had some very good astronomical equipment including a Schmidt Cassegrain telescope and a CCD camera. He seemed pretty adept at recording images and I recall reading some of the posts that Chuck was making on the internet prior to his "discovery" of the companion. He would post an image and then state he could not identify anything unusual in the image. Apparently, Chuck was already on the hunt for some form of anomaly. When he did find something, he immediately went public on The Art Bell radio show proclaiming that he had imaged a "Saturn-like object" that was pacing the comet. This claim did not stand up to critical examination by other astronomers. They quickly identified the "object" as a star that had been distorted by the telescope's optics. When this was pointed out, he took on a combative attitude and then made some ridiculous statement rather than admitting his error. Of course, some in UFOlogy will often be more than willing to accept such claims. UFO proponent Alfred Lehmberg still seems to put more faith in Chuck Shramek's discovery of the "companion" than the actual science which demonstrated it was nothing more than a star. This little lesson makes one realize that even if an individual proclaims that they are an amateur astronomer it does not necessarily make one a perfect observer or expert analyst, who could not be mistaken about what he has seen or is a person more than willing to inflate something normal into something unusual/exotic.

The Hale-Bopp debacle demonstrated that there are some astronomers, who are more than willing to inflate claims of "extraordinary" observations for their own personal reasons. However, the majority of astronomers are not so quick to report observations of an exotic nature in such a manner. There is a process for announcing discoveries and most astronomers follow it.

## The thrill of discovery!

Probably the most rewarding observation an astronomer can make is finding something new and being the first to report it. Novae, comets, and even asteroids are searched for on a regular basis by amateur astronomers. Some amateurs dedicate their lives to this effort. Others quickly discover that it requires diligence and may not produce any positive results. Most involved are very careful in their searches but others are not. According to the International Astronomical Union's website concerning comet discoveries:

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"Discovering" a comet means different things depending on whether one is a very experienced observer or is a beginning observer. For every real new comet discovery, the Central Bureau for Astronomical Telegrams (CBAT) gets perhaps five reports of "discoveries" that do not pan out. And in most of these unconfirmed or erroneous discovery reports, the observers declare "NEW COMET" or "COMET DISCOVERY", even though they have only seen the possible object once (with no detectable motion), or even though they only have a single photograph on one night with a suspicious-looking object. (IAU)

These are careful observations of astronomical objects that most amateurs are somewhat familiar with. However, based on this statement, those reporting discoveries of comets are wrong over 80% of the time. Perhaps it is the excitement of discovery or the lack of rigor in confirming one's observations, that produces these errors. It clearly demonstrates that amateur astronomers, as well as some professionals, can be easily "blinded" by the excitement of possibly finding something new instead of critically examining what they have observed.

## Professional astronomers are far from perfect!

While amateur astronomers can make a mistake in identifying an object, one might think that a professional, who has had formal schooling on the subject, would be less likely to make an error. Unfortunately, professional astronomers have been known to make errors over the centuries in their observations and interpreting them. Some examples are:

- 1. <u>Lowell's</u> misinterpretation of the canals of Mars. <u>The observations were</u> misperceptions of fine details that appeared to Lowell (and other astronomers) as straight lines.
- 2. Lowell's misinterpretation of the darkening of Mars as growing/receding vegetation. This is something that some UFOlogists still believe today as noted by George Filer's comments Astronomers have noted for a hundred years that each year in the Spring Mars turns green. It is logical to assume the green coloring is caused by vegetation or moss/lichen like biological processes. Spectrometers have been picking up methane and water vapor around the equator of Mars. (Filer). The actual explanation was produced decades ago. The changing colors and darkening has more to do with the martian atmosphere causing dust to be stirred up and make the surrounding areas brighter. This results in the dark areas to appear darker and more greenish. If you believe Filer, all the images from the various spacecraft have been doctored in order to eliminate any evidence of this vegetation that can be seen from earth but not Mars orbit.
- 3. <u>Le Verrier's acceptance of the mythical planet Vulcan observations</u>. He performed the computations that lead to the discovery of Neptune and accepted observations of this mythical planet made by other observers because it explained his computations that suggested a planet inside the orbit of Mercury (Einstein later explained the computations without the need of a planet Vulcan).

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- 4. Schroter's support for life on the moon
- 5. Schroter/Cassini made incorrect observations suggesting a rotation period of Venus. They computed a period to be around 23 to 24 hours in duration. The actual rotational period is 243 days and it rotates in a retrograde motion.
- 6. Cassini's discovery of The moon of Venus
- 7. Schiaparelli's observations of clouds on Mercury, which has no atmosphere.
- 8. <u>William Pickering's</u> observations of Jupiter's moons being inaccurate. Pickering also spent a great deal of time advocating the canals on Mars as well as life on the moon.

Many of these astronomers changed their conclusions when more data became available. However, others were very steadfast in their interpretations of their observations. Lowell and Pickering are excellent examples of astronomers who looked at their observations from only one perspective. Historian Joseph Ashbook described Pickering as "three-fifths genius and two-fifths sheer fudge" (Dobbins and Sheehan The Story 114). Just because an individual is highly intelligent and highly educated does not necessarily translate into a critical observer or thinker.

Despite this history of misperception and misinterpreting observations, astronomers have not dismissed reports that might indicate something new. The most recent example has to do with Earth's nearest neighbor, the moon.

## Glows and moonlights

Probably one of the greatest astronomical quests in recent years that was based mostly on anecdotal reports had to do with <u>Transient Lunar Phenomena (TLP)</u>. TLP's were observed on the moon over the years and much of what was observed seemed to imply that the moon was volcanically active. Like UFOs, TLP's were very transitory in nature. However, unlike UFOs, they were often confined to specific locations on the moon. As a result, this phenomena could possibly be studied and verified if amateurs just monitored these locations long enough. This was done for many decades with little to no result. Even today, amateurs continue to monitor the moon with advanced equipment with little in the way of convincing results.

In September 1999, the astronomical magazine Sky and Telescope published an article by Tom Dobbins and William Sheehan that was very critical of TLP research. This was not their initial intention:

When we began to compile information on TLPs for our forthcoming book on the history of lunar studies, we accepted the reports at face value. (One of us had spent more hours at the eyepiece looking for TLPs than he'd care to admit!) But as we delved ever deeper into original source material, we began to suspect that even the most "ironclad" TLP cases could not withstand close scrutiny and critical appraisal.(Sheehan and Dobbins The TLP 118)

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Dobbins and Sheehan went though most of the evidence and exposed it as mostly misperceptions and tricks of lighting on the moon's surface. They would eventually conclude:

In retrospect, the TLP furor seems to have been the result of a lapse of critical judgment reminiscent of the fairy tale of the emperor's new clothes. Following the Apollo program, an overwhelming consensus emerged that lunar volcanic activity ceased hundreds of millions of years ago...A dedicated handful of amateur observers continue to stand watch, hopefully turning their filter wheels, awaiting the next outbreak of violet glows at Aristarchus or the latest out gassing of Alphonsus. Their ongoing vigil bears tribute to the powerful allure of ideas about the moon that are as much of a flawed anachronism as the canals of Mars. (Sheehan and Dobbins The TLP 123)

Not long after the article appeared, astronomers managed to videotape meteor impacts on the moon's unlit side during the 1999 Leonid meteor storm. For some reason, UFOlogist Barry Greenwood felt this turned the tables on Dobbins and Sheehan and vindicated the evidence for TLPs:

Now, the debate about TLPs has become academic. On November 18th 1999, at the height of the Leonid meteor shower (there are those Leonids again!), multiple, independent observations of strange lunar flashes were recorded visually and on videotape for the first time in history, verifying the existence of one form of TLPs. The cause: meteor impacts from the Leonid shower on the lunar surface. It is very likely that this can explain many of the flash observations in the past, vindicating those observers as pioneers (rather than crackpots or poor observers) of a new class of astronomical observation: documenting meteor impacts as they happen. (Greenwood)

Apparently, Greenwood's understanding of TLPs is minimal, which indicates he really did not read the article carefully. Most TLPs are usually associated with specific areas of the moon (like the craters described by Sheehan and Dobbins) that are lit by the sun and often show discoloration/glows and not simple flashes of light. Unless Greenwood can show how meteors can discolor the surface of a specific crater area on a regular basis (and leave no sign of impact!) then his conclusion concerning TLPs (that TLPs have been proven) seems to be somewhat misleading. Suggesting that Dobbins and Sheehan were wrong in drawing their conclusion based on the Leonid data is incorrect. Greenwood may also have taken some umbrage that UFOlogy's "Gallileo", Dr. J. Allen Hynek, was discussed briefly in the article because he was involved in some TLP research. Sheehan and Dobbins had commented,

As Hynek was learning from his role as scientific advisor to the U. S. Air Force's "Project Blue Book" investigation of UFOs, for true believers the absence of evidence is seldom evidence of absence. (Sheehan and Dobbins The TLP 122)

Comparing the lack of evidence for UFOs to the lack of evidence of TLPs might suggest to a hardcore UFOlogist that Sheehan and Dobbins were typical scientific "debunkers" that were not willing to accept anecdotal evidence of exotic phenomena. At least

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Dobbins/Sheehan had to get their facts straight prior to having their article accepted. Apparently, this does not happen with UFO Historical review.

What is important to note is that astronomers did give the TLP phenomena a fair hearing over the years and many hours of effort were spent by professionals and amateurs in trying to study them. Even the Clementine spacecraft was used to try and verify TLP events. The quest for evidence of TLPs continues today but, as Sheehan and Dobbins noted, there appears to be no good evidence that the phenomenon represents an active lunar surface or some new phenomena.

## Why don't astronomers report UFOs more frequently?

Over the centuries amateur and professional astronomers have chased their share of interesting and unusual astronomical events. Some have proved to be new and exciting. However, many turned out to be explainable and somewhat mundane. It is interesting to note that amateurs will continue to report these events when they do see them and are not likely to hold back in reporting their observations if they feel they are valid. Would amateur astronomers continue this openness if they actually saw an unidentified object passing through the sky during an observing session?

UFOlogy wants the astronomer connection to work in one direction only. If an astronomer reports a UFO, it is accepted at face value as a good report of something new and exotic. When an astronomer observes what others perceive to be a UFO and can offer a prosaic explanation based on their observations they are ridiculed or labeled a "debunker". If an astronomer is out observing when a UFO event occurs and sees nothing, they are ignored. The reason they are ignored is because most UFOlogists are under a serious misconception about astronomers. They explain that astronomers are too busy looking through the narrow field of view in their eyepiece to see these UFO events! For instance Chris Rutkowski writes:

...amateur astronomers aren't interested in moving lights in the sky any more than they are in identifiable aircraft. The ones I hang out with want to do some specific imaging of nebulas and galaxies, and spend a lot of time looking through eyepieces with tiny fields of view. Of course, many have now switched to computer-guided scopes and spend their time in warm-up rooms, often miles away from the telescope itself. Professional astronomers are even worse in terms of observation. Few actually DO any optical observations. Many haven't looked through a telescope or spent any time looking at constellations since their undergraduate days. (Rutkowski)

Unfortunately, Rutkowski is misrepresenting what many amateur astronomers do. Yes, there are a class of amateurs that perform astrophotography (myself among them) but they represent only a fraction of the observers. Guiding through an eyepiece does not prevent them from noticing events around them. While guiding (which involves about half to a third of the time in one evening's observations), I often notice meteors, satellites, airplanes, and other objects in the night sky. These are usually objects that are not very bright. Most UFO reports describe something the size of the full moon with a magnitude similar to a bright star or planet (anything fainter probably would normally go unnoticed

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by a casual observer) and, based on Allan Hendry's data, often lasts between one and ten minutes. Rutkowski implies that amateur astronomers can not notice these events. I get annoyed when somebody uses a bright red light for only a few seconds near my telescope, a car is driving nearby, or airplanes/satellites move near the field of stars I am photographing. Based on what most UFO reports describe, I believe that I would notice such an unusual event even if I were guiding through my eyepiece!

Not all amateur astronomers are astrophotographers. Some are variable star observers, which involves finding a certain star and estimating its magnitude visually or electronically. With the exception of doing the estimate, much of the time involves aiming the scope to the location. One has to know where to aim the scope prior to looking through the low power finder. Other astronomers like to observe various deep sky objects. The same rule applies here. Additionally, there are meteor observers that do not employ telescopes and nova/comet hunters who examine star fields with binoculars. All have ample opportunity to notice something bright and unusual in the night sky. All one has to do is spend an evening at an observing session with a half-dozen astronomers to see how little is missed by the group as a whole. Based on my experience, I believe that most of these astronomers would probably notice something unusual in the sky that lasts over a few seconds, is a distinct angular size, and is brighter than most stars and planets (magnitude +1 or greater).

Additionally, the proclamation that astronomers are too busy looking through the eyepiece to notice unusual events in the sky is false. Some examples of this can be found in recent astronomical history:

The 1948 eclipse comet was discovered two degrees from the eclipsed sun. Compare this to the 1991 Mexico city eclipse, where thousands of amateur astronomers missed a UFO near the sun. Apparently, these astronomers were too busy focusing on the eclipsed sun to notice the UFO. Meanwhile, numerous individuals with no astronomical training saw and videotaped this UFO. Of course, many of the videos look a lot like the planet Venus and probably explains why amateurs/professionals "missed" the UFO. For some reason, UFOlogists refuse to admit that most (if not all) of the UFO videos shot during the 1991 Mexico city eclipse probably are of the planet Venus.

Sudden meteor outbursts for potential new meteor showers have been noted over the years. In September 2001, veteran observer Steve O'Meara saw a brief outburst of meteor activity emanating from Taurus and reported it in the September 2002 issue of Sky and Telescope. It does not matter if this was just a brief outburst or a real meteor shower. The important thing is that it was observed casually and not when O'Meara was dedicating his time to meteor observing. Apparently being glued to the eyepiece of his telescope did not prevent him from observing this unusual occurrence.

Back in the 1980s, attention was focused on the area of Aries and Perseus for what was called the "Aries Flasher" or "OGRE" based on reports by a few amateurs. Some thought that an optical gamma ray burster had been seen by these observers and one photograph did surface showing about a second magnitude object amongst star trails. Again, these amateurs saw something

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unusual despite having their eyes glued to the eyepiece of their telescopes. Research over the next few years demonstrated that most of the observations were made of "glints". Glints are brief reflections of satellites that make them visible only for a brief second or so. Something similar is seen these days with the Iridium satellites.

Observations of a fuel dump from a spent rocket stage in 2004. Many amateurs saw this event which only reached a peak magnitude of 0. Again, these astronomers were not too busy looking through the eyepiece to recognize this unexpected and transitory event.

Nova Cygni 1975. Many astronomers saw the "new star" in Cygnus and reported it. These individuals noted something unusual that evening in the sky and were quick to recognize what it was despite spending too much time looking through the tiny field of view their telescope provided. Pre-discovery photographs of Nova Cygni (1975) were taken by amateur astronomers and a meteor network demonstrating that there is a network of photographers out there recording wide field views of the stars that record unusual events in the night sky.

The star Delta Scorpii brightened unexpectedly in 2003. This was not a significant change in brightness but it was noticeable to attentive observers. Again, despite being focused on their eyepieces, amateur astronomers were able to recognize something unusual in the sky and report it.

I can add to this list my own personal observations of unusual satellite events (including two satellites in formation, a very bright satellite flare/glint, an unusually bright geosynchronous satellite during a Florida Keys Star Party, and one satellite in a very high orbit that slowly moved across the sky), numerous rocket launches (including an unannounced one from a nuclear submarine off the coast of Florida), barium clouds in the upper atmosphere, low/high flying aircraft, helicopters, weather balloons, kites with strobes/lights attached, flying animals, distant airborne flares, etc. Most of these observations were made while I was involved in astrophotography sessions or observing deep sky objects. I should have been, according to UFO folklore, too focused on what was in my eyepiece to notice them. I am sure that I have missed some events of faint moving lights in the sky over the years because I was focused on the eyepiece but I seriously contest the suggestion that I would miss an object that was visible in the sky for more than a few seconds, that had a magnitude of first or better and an angular size that is large enough to see detail as most UFO reports indicate.

One other area that was omitted by Rutkowski are those amateurs who are photographing large areas of the night sky on a regular basis. Some of these are just taking photographs of random areas of the sky while others are conducting surveys to look for new objects like nova, asteroids, and comets. No matter what the reason, they take a photographic record of the night sky. I have done this and have recorded a lot of interesting things like geosynchronous satellites, airplanes, fireflies, owls, satellites, meteors, etc. None of my photographs have yet to record any UFOs and I am unaware of any being recorded by amateur astronomers, who were doing something similar.

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As for Rutkowski's generalization about professional astronomers, I can only speak from my personal interaction with those I have met. Professional astronomers do not normally do any optical observations through their observatory telescopes but giving the impression that they are ignorant of astronomical events is not being fair or accurate. Contrary to the belief put forth by Rutkowski, they are often very good astronomers and are not ignorant of the basic astronomy they learned over the years. Many will often show up to a star party or observation session and add their knowledge to the evening making for a wonderful experience. Amateur astronomers and professionals cooperate extensively and enjoy a rapport that UFOlogists wish they had with the scientific community.

#### Professionals monitor the skies too!

In addition to amateur astronomers photographing the night sky with wide field lenses, Rutkowski completely omitted the recent efforts by professional astronomers to locate Near Earth Orbit (NEO) asteroids. These survey's have been very thorough over the past decade and, as a result, have discovered many asteroids that a relatively small and most of the comets in recent years. All of these automated telescopes or sky surveys are constantly scanning the night sky. The field of view is a few degrees and the telescopes cover hundreds of square degrees in a single night! One would think that at least one UFO entering the solar system or moving through the skies might be captured by one of these instruments. Not surprisingly these telescopes have yet to find anything that one might consider a truly "unidentified object".

Other sky patrols involve meteor cameras like the <u>Spanish photographic meteor network</u> and <u>the North American All-sky camera network</u>. These use all-sky cameras and operate something like the old Prairie meteor network from the 1960s but with a twist. Some employ video cameras and others employ CCD cameras. There are even cameras that record <u>the night sky live</u> for all to see! Once again, these surveys and cameras do not report any UFOs. If they do, <u>they are not hidden but reported to the public</u> (<u>this was eventually identified</u>).

The night sky has never been so closely monitored by astronomers. Amateurs do their own surveys of the sky. Several operate all night meteor cameras that record bright fireballs. Meanwhile, the professionals are systematically hunting down objects that could create a catastrophe. Despite this monitoring of the sky, these same astronomers have yet to release any compelling images of UFOs. The only answer UFOlogists have presented to explain this is that astronomy is not providing adequate coverage of the night sky on a regular basis and therefore miss most UFOs. To suggest that this is the reason really is ignoring what many astronomers, professional and amateur, accomplish.

### **Professional astronomer UFO reports**

Despite their focus on specific studies using advanced equipment, professional astronomers still "look up" at the sky and, occasionally, have seen something they were not familiar with. Dr. J. Allen Hynek interviewed many professional astronomers in the 1950's attempting to gather more data on these events. Out of forty interviewed, five stated they had seen a UFO (Astronomers R, II, LL - La Paz, NN - Tombaugh, and OO).

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One of these (R) did not place any significance to his sighting. None of the reports had anything to do with detailed observations of "structured craft" but were mostly fleeting glimpses of lights or small (in angular size) objects that lasted only a few seconds. If these are the principle observations that demonstrate that UFOs exist as some form of "structured craft that demonstrate unearthly characteristics", then they are very poor evidence even if the witnesses were professional astronomers.

The astronomers opinions concerning these events have often been selective. They often did not draw any conclusion at all, simply felt there was no significance to the sighting, or, upon reflection, felt it was some form of phenomena they were not familiar with or had never seen before. For instance, Tombaugh apparently wrote Dr. Donald Menzel about his sighting and stated:

A much more likely explanation is some natural optical phenomenon in our atmosphere. In my 1949 sighting the faintness of the object, together with the manner of fading in intensity as it traveled away from zenith towards the southeastern horizon is quite suggestive of a reflection from an optical boundary or surface of slight contrast in refractive index, as in an inversion layer. I have not seen anything like it before or since, and I have spent a lot of time where the night sky could be seen well. This suggests that the phenomenon involves a comparatively rare set of conditions or circumstances to produce it, but nothing like the odds of an interstellar visitation. (Menzel and Boyd 269-270)

This is somewhat different than what Tombaugh is recorded as saying at another time:

I doubt that the phenomenon was any terrestrial reflection because in that case some similarity to it should have appeared many times...[but] nothing of the kind has ever appeared before or since. (Clark 560)

This was in a letter Tombaugh wrote to Richard Hall in 1957. Clark suggested that Tombaugh shifted his position in the 1960s about the time Menzel had written his book. Exactly why is unknown since Clark only suggests there was a motive for doing so. Perhaps Tombaugh began to rethink the observation after discussing it with Menzel. The most important thing to note is that Tombaugh never gave much credence to the suggestion that the source of his UFO sighting was a "structured craft" of alien origin. This is confirmed by James Moseley's recollections of his interview with him:

...I was frustrated because I could not get him to admit that his famous sighting in August 1949 was of an interplanetary spacecraft...He refused to express an opinion as to its origin. (Evans and Stacy 59)

Tombaugh's observation continues to be one of those UFO sightings by a professional astronomer that gets repeated over an over again. Had Tombaugh not been the discover of Pluto, it is likely that his sighting would only get occasional mention in most UFO literature or not at all.

There are other sketchy reports from professional astronomers that have entered the UFO literature. Considering that many, if not all, are observations by one individual, their

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value as evidence can be considered low. The details of these observations are often missing or can not be verified by other observers. One thing the history of astronomy has shown is that single observations are often in error and conclusions drawn from them are usually wrong.

### **Amateur astronomer UFO reports**

More numerous than their professional counterparts, amateurs spend a great deal of their time making visual observations of the sky. Since they are more numerous, one would assume that amateurs report more UFOs than their professional counterparts. There are no good statistics to rely upon but it stands to reason that this is probably true. What do these UFO observations imply?

One must recall that anyone who observes the sky on a casual basis can call themselves an amateur astronomer. If a UFO report states the individual was an amateur astronomer, how do they differentiate between a novice and an advanced observer? This makes the "amateur astronomer" link to UFO reports suspect unless it is clarified in the report. However, it does not mean that ALL UFO reports are made by novice observers. There are UFO reports from experienced amateur astronomers and one can usually tell by the report since it will be filled with details that can be analyzed. For instance, this is the kind of report one might expect from an experienced amateur astronomer:

Charlotte, North Carolina 10:55PM EST November 8, 1968: Observing conditions are generally deteriorating with increasing haze and upper air currents. While observing within the constellation of Aquarius, I caught sight of what at first appeared to be a meteor, because movement was immediately apparent. The object was observed to be foreign in nature, primarily circular, but with slightly fluted leading edges on two sides, giving the appearance of a tailless stingray. The object was large, encompassing at least 3/4 of a degree, and was of a silvery-greenish hue approximately -2 in visual magnitude. No accurate impression of altitude could be determined. Immediately following the sighting, the initial position was marked at 165 degrees azimuth. The object proceeded slowly in a southwesterdly direction and was followed in 10X60 binoculars for a period of 45 seconds until it disappeared from view just west of Beta Ceti, at a position of 195 degrees azimuth. Detail within the object could not accurately be described. There were streaked variations in the lighting indicating the possibility of some markings. The object did not make any sound. (Herb 2)

From this report we can map the object across the sky down to the nearest few degrees. We can also determine the approximate angular size and speed. However, we can't produce much more information than this without observations from another location. The object could have been 500 feet across or 5 feet across. One can not accurately determine this without more information. As a result, exactly what this object was is hard to determine (it could have been a booster stage in orbit as this video clip demonstrates). The article this came from was written by astronomer/UFOlogist Gert Herb for the Astronomical League's Reflector Newsletter. Herb, while trying maintain an attitude of scientific indifference in his article, makes the great leap to suggest that this report is an

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example of "Alien Technology" and the interior of an actual craft had been observed! Unless all possibilities are eliminated (and the possibilities could be endless), it is hard to draw such a conclusion based on the observation by one individual. Most importantly, the history of astronomical observations has shown that interpreting observations based on sketchy details can often leads to a wrong conclusion.

Like their professional counterparts, many experienced amateurs know better than to draw these kinds of conclusions based on fleeting observations that can not be confirmed. They also are aware that there is phenomena they may not be familiar with or they can easily misinterpret what they saw. In all my years as an amateur astronomer, I do not recall other amateurs talking about seeing "exotic structured craft" during their observations. I have heard of descriptions of unusual lights in the sky but nothing that would make me or anyone else I know draw this conclusion. The suggestion that "Alien Technology" is demonstrated in any UFO report from an experienced amateur or professional astronomer, is often a conclusion based on interpreting the report based on certain point of view.

# UFOs are REPORTS of events that could not be identified at the time of observation!

It would be ridiculous to state that astronomers do not see unusual events in the night sky! There are always the events that can baffle even the best astronomers. How these events are recorded and interpreted by the observer can make a difference between a report of something unidentified, the eventual identification of the source, or the possible misinterpretation of what was observed. Astronomers may have the ability to more readily identify the source but there are always those events that an astronomer may have never experienced and could puzzle him to the point of generating a UFO report. However, just because an astronomer files a UFO report does not mean he saw something that is unknown to science or, as many UFOlogists like to suggest, some form of "alien technology".

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