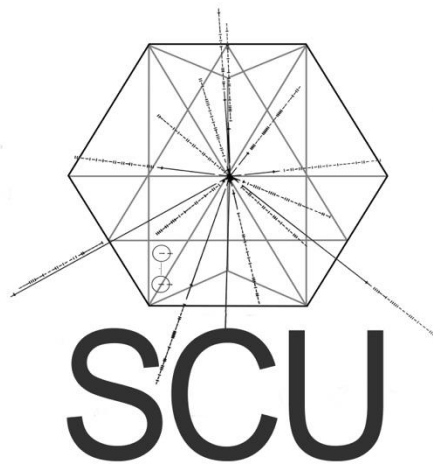


UAP Activity Pattern Study 1945-1975

Military and Public Activities



Scientific Coalition for UAP Studies
Scientific Exploration of Anomalous Aerospace Phenomena

UAP Activity Pattern Study 1945-1975 Military and Public Activities

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Abstract:

This paper reviews patterns of reported Unidentified Anomalous Phenomena (UAP) in the United States associated with specific types of UAP activity observed during the period 1945-1975.

The nine specific types of UAP activity reviewed were:

1. interactive flight,
2. radical flight,
3. electronic transmissions,
4. interference with military weapons systems,
5. intrusions at military installations,
6. loitering,
7. close approaches,
8. observed occupants, and
9. encounters with occupants.

Our previous studies for the same period focused on patterns ([Hancock, et al, 2023a](#)) and indications ([Hancock, et al, 2023b](#)) of UAP incidents reported to the U.S. military, particularly in the context of the development of the atomic warfare complex and the deployment of strategic atomic weapons. These studies analyzed activity based on location and association with military activities, which indicated an intelligent and focused survey of US atomic weapons development.

While this study addresses a separate question to that of the previous studies, they use the same UAP report sources and there is an overlap of incidents between the three studies (Appendix 1).

A set of 505 UAP incidents were selected from Project Blue Book, the National Investigations Committee on Aerial Phenomena ([NICAP](#)), *Clear Intent* ([Fawcett and Greenwood, 1984](#)), and *Faded Giant* ([Salas and Klotz, 2005](#)). The incidents were chosen after a comprehensive investigation to ensure sufficient information was available to characterize the activities and that the incident displayed at least one of the nine specific types of UAP activity being studied.

During the early study period 1945-1960, most reports involved UAP being observed at a distance, during the daytime and with both the military and public. From 1960 onwards, the UAP reports shifted to close approaches during the nighttime and with the public. The public domain increases in reports from 1960 onwards included close approaches, occupant observed and occupant encounters. UAP occupant reports and reported messaging indicate intelligence; however, there are limited data with which to establish strong patterns and trends and further study is required. The military domain activity

which focused on the locations of deployed atomic weapons continued throughout the study period.

1. Introduction

This paper reviews patterns of UAP activity in the United States derived from reports from both the military and public domains during the first three decades of what has been historically described as the “flying saucer” era. Military reports from that period generally used the terminology of “UFO or “UFOB” (“Unidentified Flying Object”), while public and media reports most often referred to “flying saucers” in describing observations of what are currently described as UAP.

Previous SCU studies for the same period focused on patterns and indications of UAP incidents reported to the U.S. military, particularly in the context of the development of the atomic warfare complex and the deployment of strategic atomic weapons ([Hancock, et al, 2023](#)). This study examines and compares specific types of UAP activity patterns within the military and public domains. While this study addresses a separate question from the studies for the U.S. Military Atomic Warfare Complex, there is an overlap of incidents between the three studies (Appendix 1).

UFO/UAP reports were discussed consistently and extensively over the three decades of our study period. Media coverage and a host of “flying saucer” and “UFO” books published during this period created a well-established public image of UFO/UAP activities, their frequency and significance. The theme of UFOs/flying saucers as alien visitations became a standard topic in the entertainment industries and was so culturally embedded that books have been written about UFOs, and have been featured in news print, television, and movies ([Curtis, 1994](#)), ([Neishem, 1997](#)). This work explores the extent to which the popular image is supported by the most credible official reports and private scientific investigations of the period. Extending the pattern recognition study from the purely military focus into the public domain allows us to use the military experience as a baseline, enabling the identification of continuity (or discontinuity) in overall UFO/UAP reporting and investigation.

To that end, this paper first examines some basic characteristics of UAP observations, including visibility (daylight vs. nighttime) and venue (military vs. public). It then examines publicly visible characteristics, including those suggestive of intelligent action and unconventional technology (interactive and formation flight by multiple UAPs, radical and unconventional maneuvers, extreme acceleration/deceleration, and controlled close approaches to observers). It also examines activities that could be taken to imply “messaging” (encounter/engagement with aircraft, electronic transmissions, intrusions at military facilities, and interference with military weapons systems), as well as incidents of reported actual contact with occupants (occupants observed in UAPs, occupant encounters, and instances of reported interactions with occupants).

2. Collections and Classification

2.1. Sources and Selection

The same sources used for the Pattern Recognition and Indications Analysis for the U.S. Military Atomic Warfare Complex were used for the inclusion of incidents from the public domain: the Sparks 2020 list ([Sparks, 2020](#)) (composed largely of Air Force Bluebook Project investigations and reports), and the National Investigations Committee on Aerial Phenomena ([NICAP](#)) chronologies were used as the primary data sources for this study, supplemented by Intercontinental Ballistic Missile (ICBM) related incidents described in the books *Clear Intent* ([Fawcett and Greenwood, 1984](#)) and *Faded Giant*

([Salas and Klotz, 2005](#)), and reports from the general public investigated by Dr. J. Alan Hynek, Dr. James McDonald, and NICAP field investigators.

The Air Force's official investigation and reporting of UAP incidents ended in 1969, and over the course of the investigation, they documented 12618 incidents (Figure 3-17). For the purposes of the studies the authors turned to additional incidents which were reported to local law enforcement or documented in military reports to the North American Defense Command and the National Military Command Center, which were published within the 3093 NICAP chronological collection of UAP incidents (Figure 3-17) or gathered from published works (*Clear Intent* and *Faded Giant*). An individual incident can be reported on by multiple of the above sources, any duplicated incidents were removed.

Each incident collected in this study was classified as military if the observation was on a military facility or from a military aircraft. It was listed as public if it had occurred elsewhere (including from commercial or private aircraft), even if the observer was in the military. Each incident was also listed as daylight or nighttime with reference to the seasonal time of day for the observation when ambient light was still sufficient for a physical description of the object rather than it being reported as simply a light. Twilight reports were considered as daylight regardless of the time of year.

2.2. Definitions - UAP Activity Categorization

The study included 505 incidents from both the military and public domains that displayed interactions between UAP and observers. Incidents selected for this study involved UAP incidents that fall into the following activity classifications:

Close Approach – Observer reported UAP at a distance and observed a closing of distance in the immediate direction of the observer. For the purposes of this study, “close approach” required a distance that allowed viewing and reporting of physical characteristics of the UAP.

Electronic Transmissions - UAP was reported to have been the apparent source of broad spectrum, select frequency, or coded electronic signals received by equipment being operated or monitored by the observer.

Interactive Flight - Multiple objects observed simultaneously or following one another over a very short period between objects. Movement may be in both structured and unstructured groups but in the immediate vicinity of each other and displaying the ability to move without collision and with reaction to each other's movements.

Interference with Weapons Systems - The proximity of UAP to a strategic atomic weapons installation or atomic weapon-carrying aircraft was involved in an undefined effect that hindered or prevented the use of the atomic weapon.

Intrusions at Military Facilities - UAP was reported to have violated the immediate security perimeter of a military installation, including close physical proximity to weapons associated with the installation.

Loitering - UAP remained in the same locality for an extended period, approximately one-half hour or longer. Incidents that involved radar tracking were treated in the same fashion.

Occupant Observed - Observer reported an occupant inside a UAP or on the ground directly associated with a grounded or hovering UAP.

Occupant Encounter - Observer reported an occupant in proximity to a UAP and described some form of interaction, communication or messaging associated with the encounter. For this study we only dealt with direct encounters reported by the observer.

Radical Flight - Observer (visual or radar tracking) characterized the UAP as displaying unconventional speed, acceleration, or flight maneuvers outside those of conventional aircraft.

3. Day vs. Night and Military vs. Public Incidents

To isolate patterns potentially related to changes in UAP activity focus, the incidents selected for this study are identified as either daytime or nighttime incidents and as relating to the military or public. Daytime encounters could be more indicative of a messaging activity, whereas a nighttime encounter may be indicative of a focused covert collection of information or materials. The ratio between the daytime and nighttime incidents may have been affected by changes in other factors, for example a change in the level of activity between the military and public or the UAP activity type.

3.1. Comparison Between Day and Night Incidents

Incidents are classified as either during the daylight hours, (between sunrise and sunset) or during nighttime. Figure 3-1 shows the number of day vs night incidents in each year and how this ratio changes over time to predominantly nighttime.

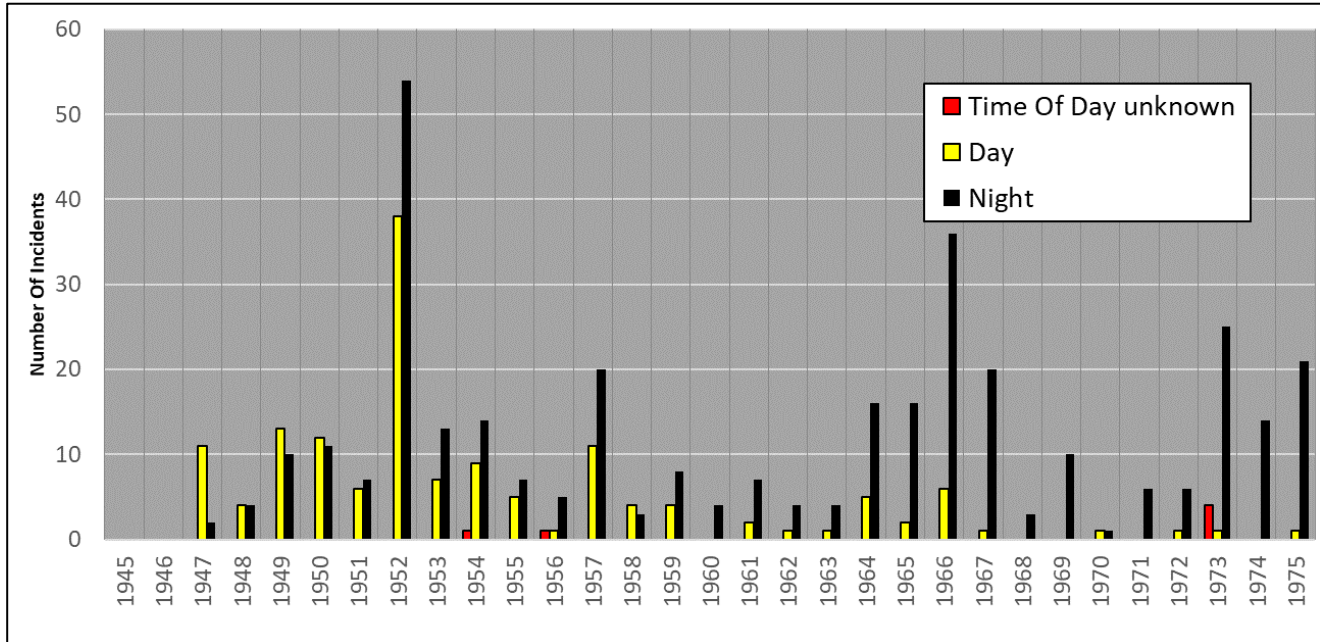


Figure 3-1. Number of daytime and nighttime incidents by year for the period 1945-1975

To see the general trend over time, Figure 3-2 groups the incidents shown in Figure 3-1 into 5-year blocks (the last block is for 1975). Overall, during the period there is a change from a 60/40 day/night split to predominantly nighttime (95% nighttime) incidents by 1975.

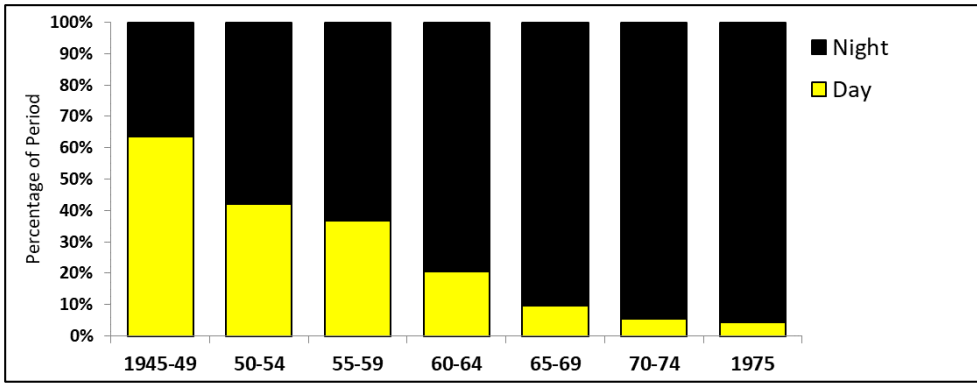


Figure 3-2. Comparison between day and night incidents by 5-year blocks

Expanding Figure 3-1 to include the months to highlight the changes to more nighttime incidents which started to occur during the peak of 1952. During the 1952 UAP wave in the United States, we see a transition to a greater number of nighttime incidents, as shown in Figure 3-3. The change in day/night split continues to increase relative to nighttime incidents over time.

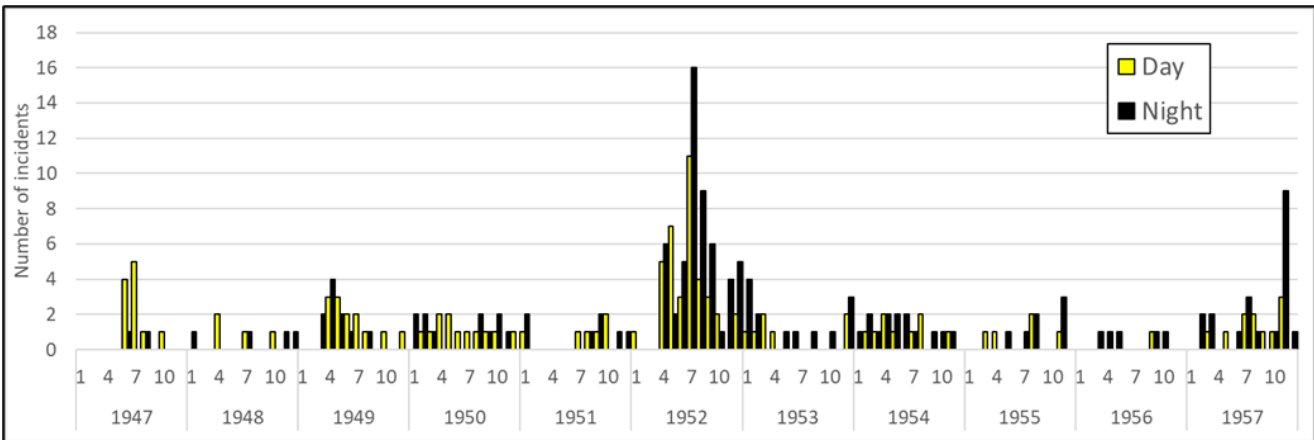


Figure 3-3. Monthly number of incidents from 1947 to 1957

3.2. Comparison Between Military and Public Incidents

Incidents are classified as either relating to the military or the public domains, Figure 3-4 shows the ratio of public vs military incidents in each year and the change in the ratio over time to predominantly public incidents.

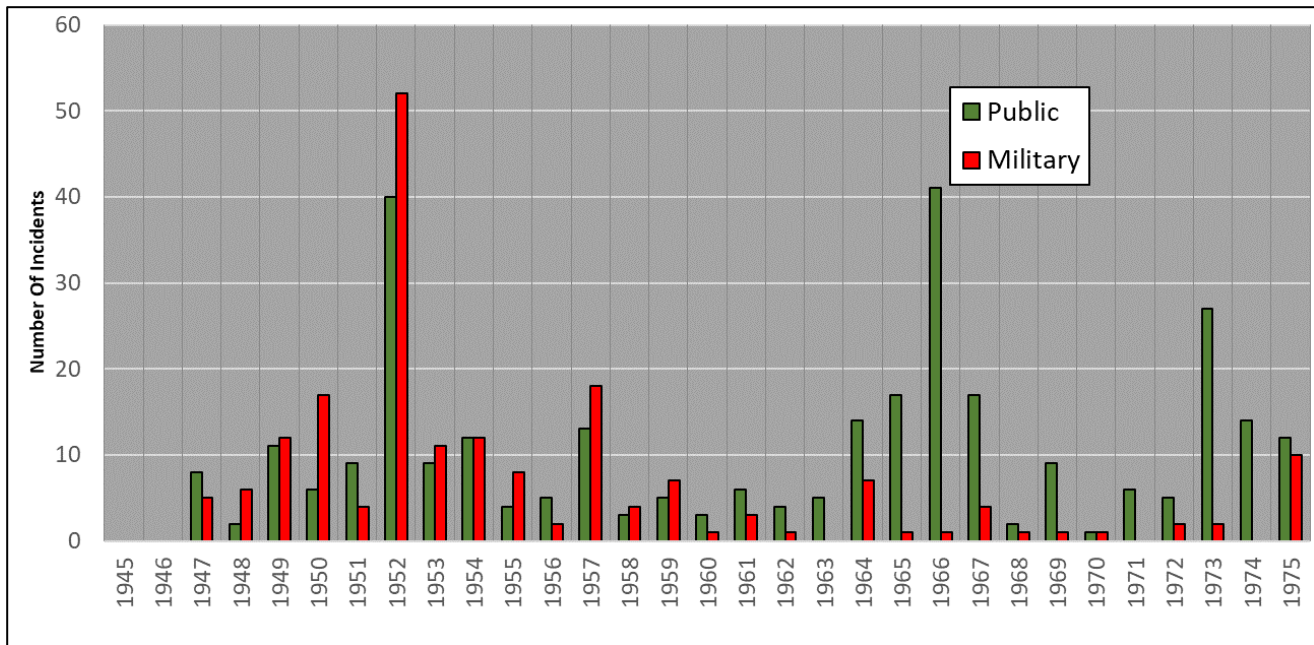


Figure 3-4. Number of military and public incidents by year for the period 1945-1975

To see the general trend over time, Figure 3-5 groups the incidents shown in Figure 3-4 into 5-year blocks (the last block includes 1975). Within the types of incidents there are three main periods.

- 1947 through 1960. During this period there were slightly more military than public incidents.
- 1961 onward, increasing public relative to military as well as an increase in total incidents peaking during 1966 and then dropping off.
- 1970-1975. The military increase is driven by incursions at the ICBM bases during 1975 (Figure 5-9).

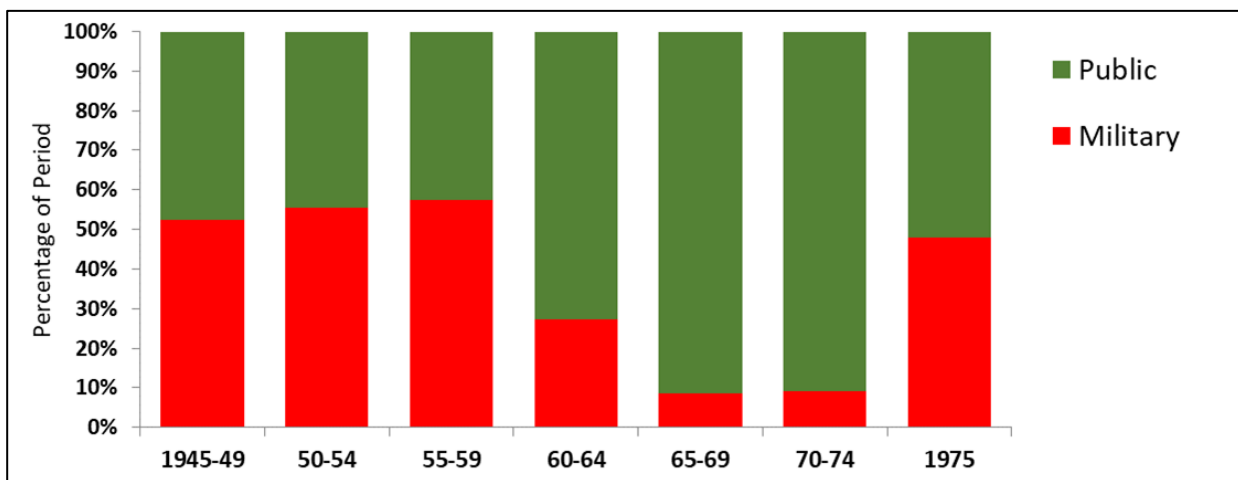


Figure 3-5. Comparison between military and public incidents by 5-year blocks

3.3. Military and Public incident locations in the United States

While both the military and public incidents are spread across the United States during the study period of 1945-1975 (Figure 3-6), there are patterns to the incidents when broken down by year.

The general patterns are:

- 1945-1955: Widespread but linked to U.S. Atomic warfare complex.
- 1965-1968: Public UAP incidents are predominant in the eastern region of the United States
- 1967-1969: UAP clusters of incidents around ICBM sites
- 1969-1974: UAP incidents are predominant in the east north central and northeastern regions of the United States
- 1975: UAP incidents clustered around ICBM and atomic warfare sites.

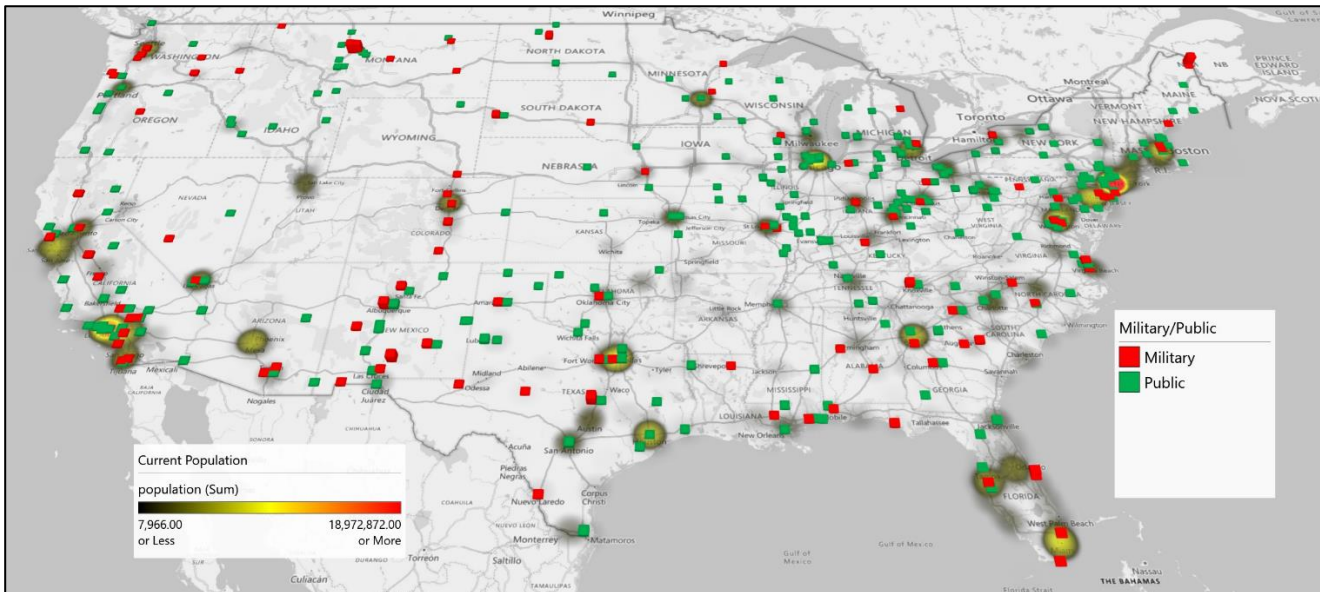


Figure 3-6. Geographic location of incidents within the United States categorized as either relating to the military or the public for the period 1945-1975.

In Figure 3-7 during 1945 to 1954 the incidents were spread across the United States, with a proportionally higher number in New Mexico, given the low population size. During 1945 to 1951 military UAP incidents were focused on the atomic warfare complex ([Hancock et al, 2023](#))

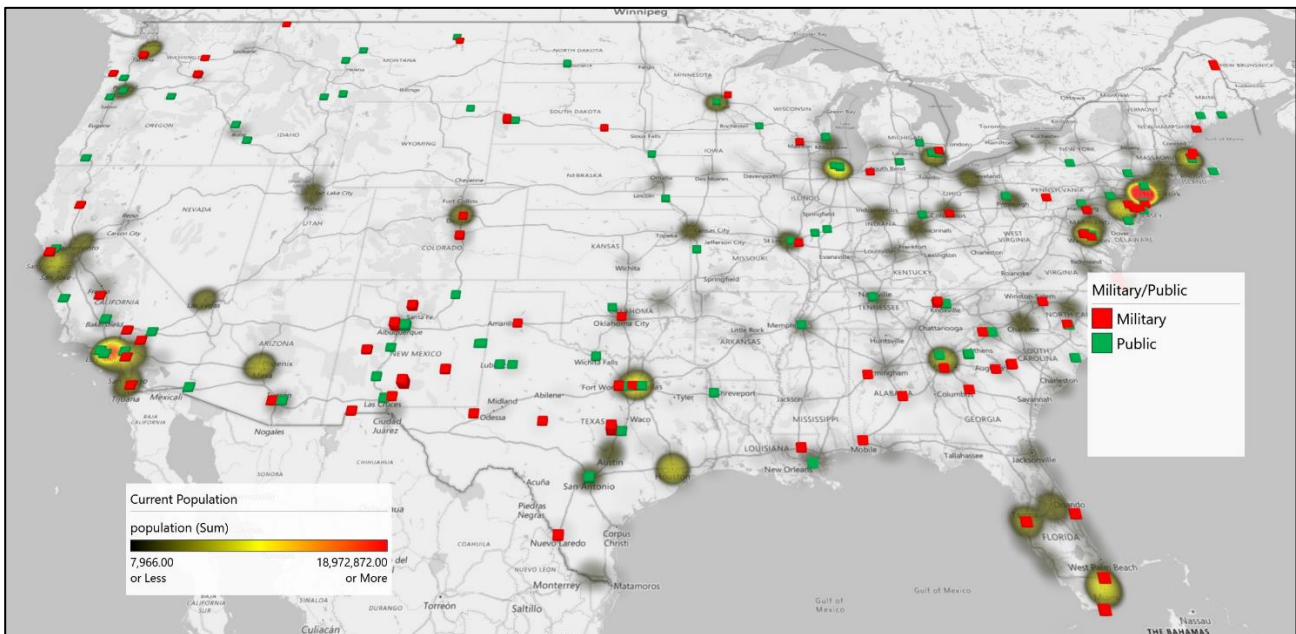


Figure 3-7. The geographic location of incidents within the United States categorized as either relating to the military or the public from 1945 to 1954.

In Figure 3-8 during 1959, the Atlas ICBMs became operational and were retired in 1965 (the Atlas sites are marked with dark blue dots on the map). While there are a couple of incidents at Walker Air Force base (1957 and 1959), the incidents themselves and the levels of activity are not enough to suggest an overall focus on Atlas ICBM sites during this period.

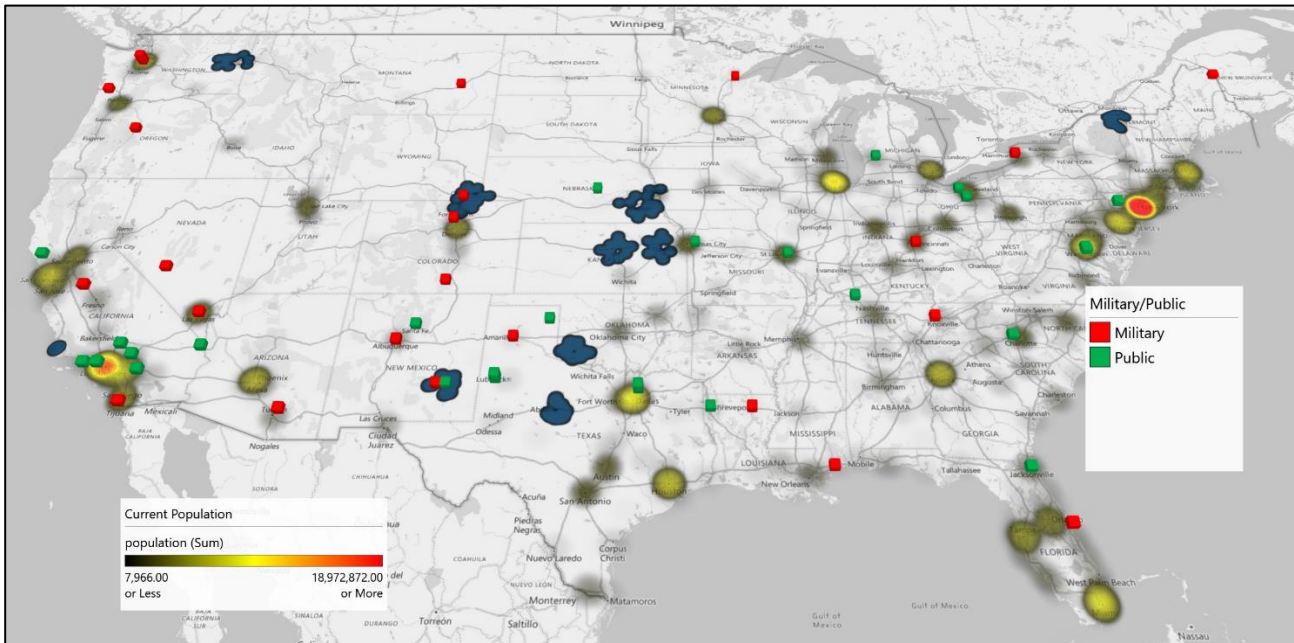


Figure 3-8. The geographic location within the United States of incidents categorized as either relating to the military or the public from 1955 to 1959.

In Figure 3-9 the monthly incidents are shown for the period 1945 to 1959 and categorized as either military or public to show the cluster of activity.

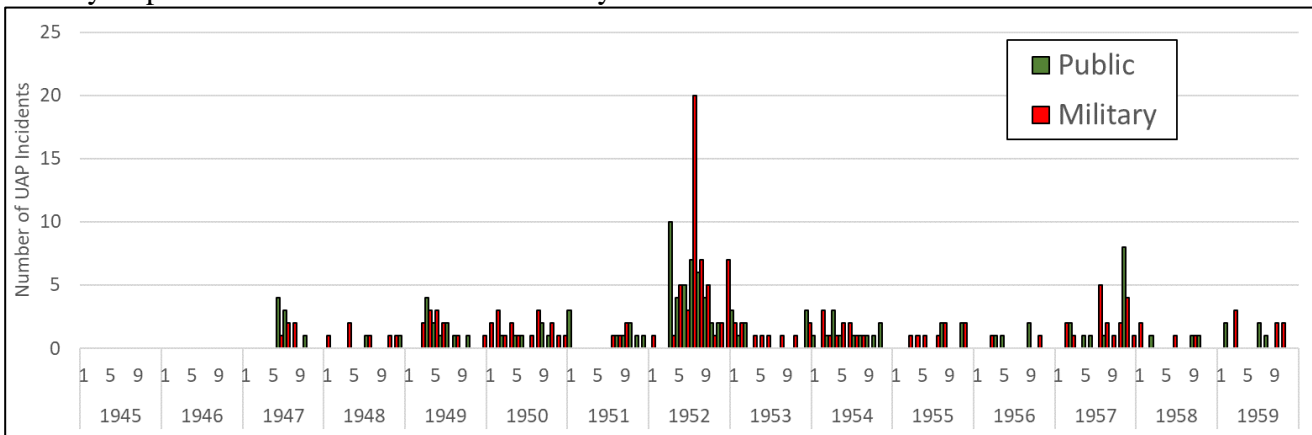


Figure 3-9. Monthly military and public incidents from 1952 to 1959

In Figure 3-10 the period of 1960 to 1964 there is a smaller number of incidents. During this period the U.S. started the development of the ICBM sites. Atlas ICBM sites are marked with dark blue dots (1959-1965). Titan type I and II ICBM sites are marked with purple dots (1962-1987). Minuteman I (1962- 1969), II (1965- 1994), and III (1970- present) ICBM sites are marked with light blue dots.

There were three UAP reports associated with ICBM complex security zones during the mid-1960s but none directly associated with specific missile silos (launch sites).

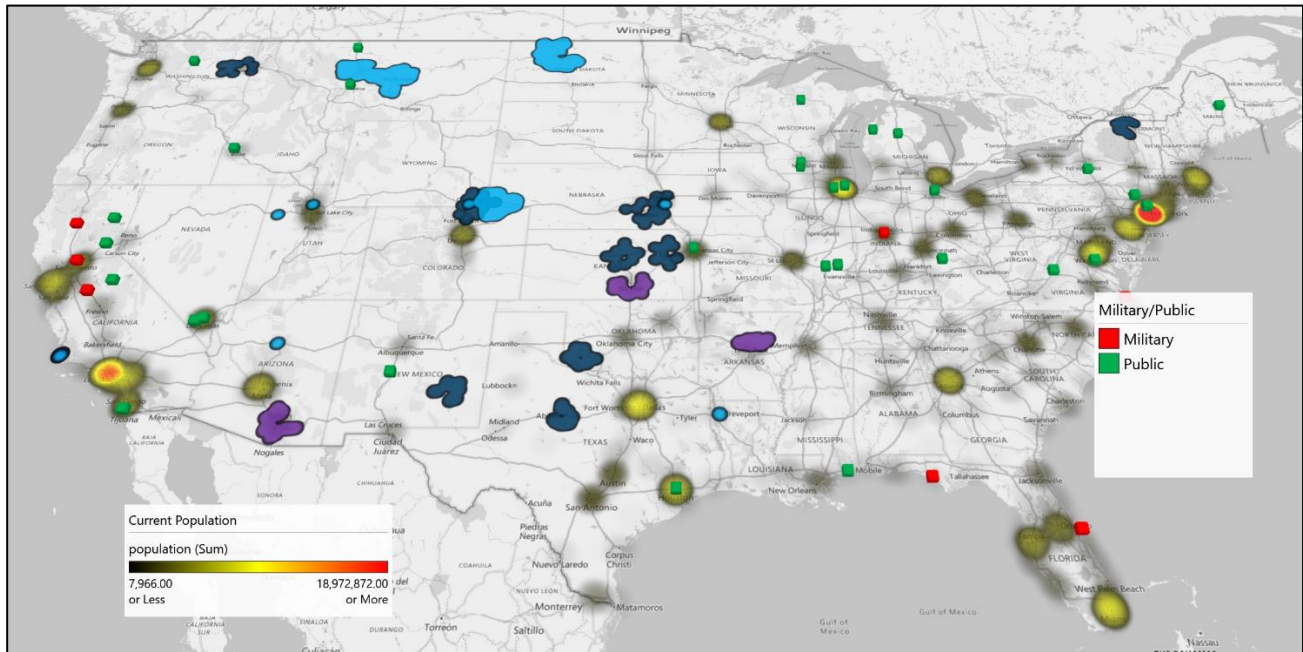


Figure 3-10. The geographic location within the United States of incidents categorized as either relating to the military or the public from 1960 to 1964.

In Figure 3-11, the period 1965 to 1969 public incidents were predominant in the east north central and northeast regions of the United States. Small clusters of both military and public incidents center around three of the Minuteman ICBM sites: Malmstrom (Montana), Minot (North Dakota), and one report to the west of the Strategic Air Command headquarters in Omaha (Nebraska).

The last Atlas ICBM was decommissioned in 1965 (marked with dark blue dots). Titan ICBM (marked with purple dots) show no comparable activity to that occurring at the Minuteman ICBM installations. Incidents at the Minuteman ICBM sites at Malmstrom and Minot cluster together during March 1967. Incidents were recorded at both sites and that pattern repeats again 1975.

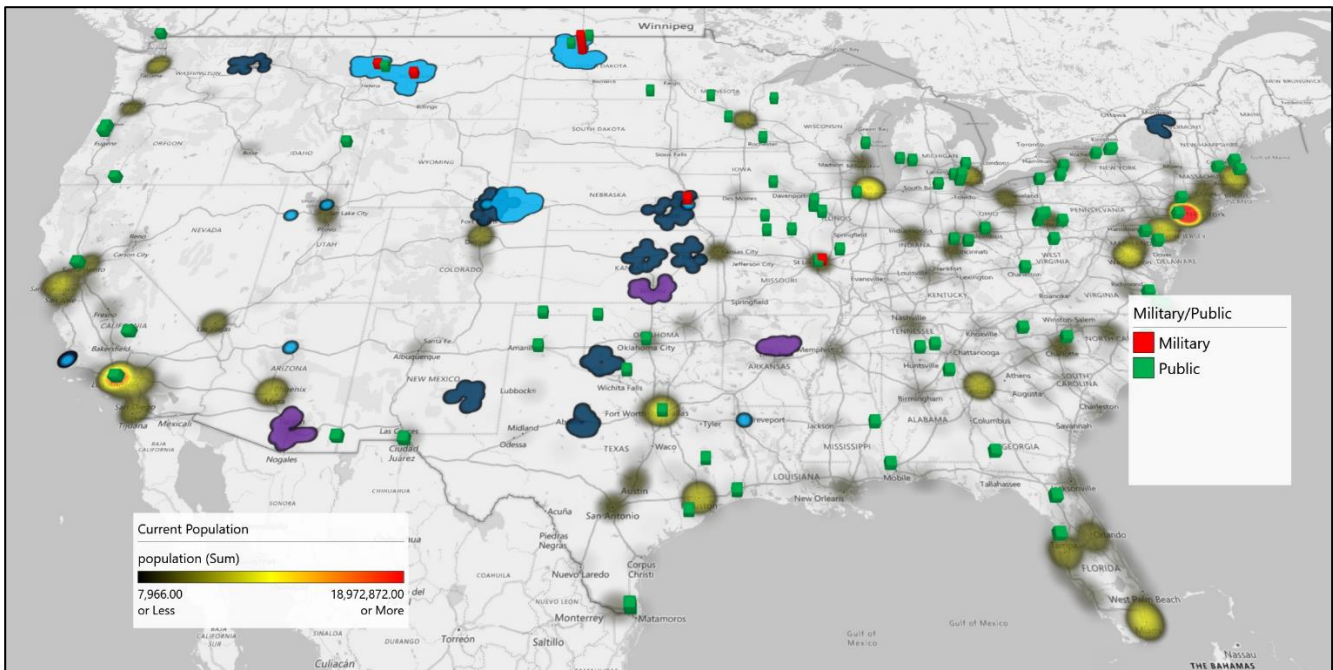


Figure 3-11. The geographic location within the United States of incidents categorized as either relating to the military or the public from 1965 to 1969.

In Figure 3-12, the monthly incidents are shown for the period 1960 to 1969 and categorized as either military or public to show the cluster of activity.

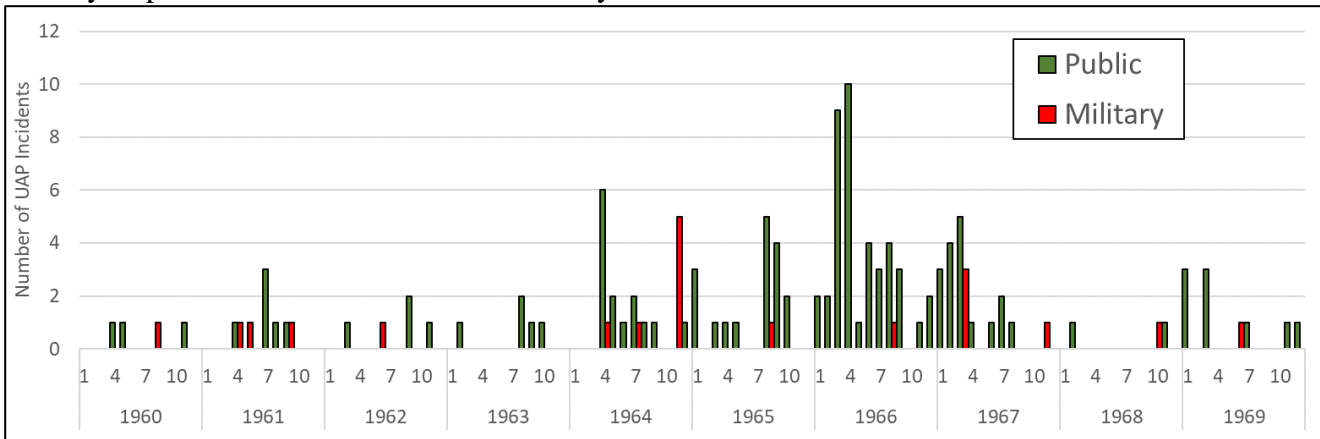


Figure 3-12. Monthly military and public incidents from 1960 through 1969

In Figure 3-13, most of the incidents during 1970-1974 are public and are clustered in the east north central part of the United States, with most of those during 1973-1974. Only one public incident is recorded in the vicinity of an ICBM site, north of Salina, Kansas. Minuteman ICBM sites are marked with blue dots, and the Titan ICBM sites are marked with purple dots.

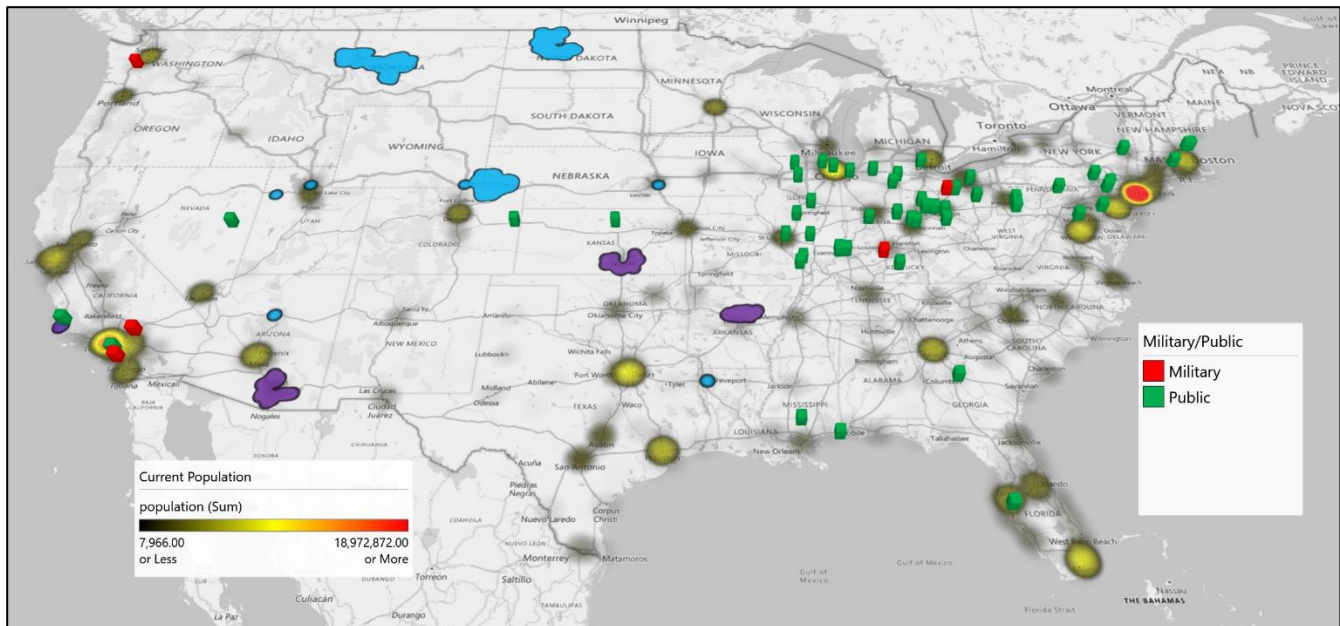


Figure 3-13. The geographic location of incidents within the United States categorized as either relating to the military or the public from 1970 to 1974.

In 1975 (Figure 3-14), the military incidents and approximately 50% of the public incidents were centered around a 21-day window, from October 18 to November 8. There were 25 military incidents between October 30 and November 9 at the Minuteman ICBM sites at Malmstrom Air Force Base (AFB) (Montana), Minot AFB (North Dakota), Wurtsmith AFB (Michigan) and Loring AFB (Maine), all of which stored atomic weapons. There were also six public incidents between October 18 and November 11, four around the Malmstrom ICBM area and one in Idaho. The sixth public incident is the Travis Walton case in Arizona on November 5. The focus of UAP for both the military and public domain during 1975 appears to be related to the atomic warfare complex, specifically to the Minutemen III (Multiple Reentry Warheads) installations across the “northern tier” Strategic Air Command bases. Except for one incident at Malmstrom AFB, which occurred in the morning twilight, the incidents during this window of activity all occurred during the night. ICBM sites are marked with blue dots and the Titan ICBM are marked with purple dots.

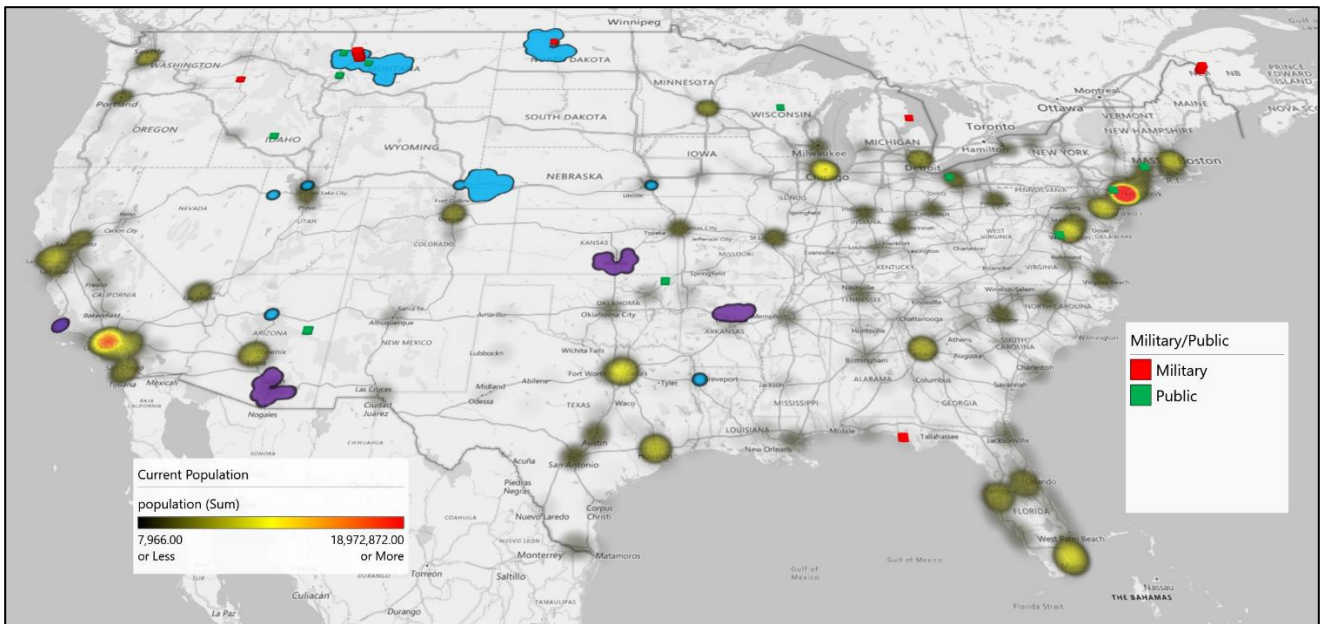


Figure 3-14. The geographic location within the United States of incidents categorized as either relating to the military or the public in 1975.

In Figure 3-15, the monthly incidents are shown for the period 1970 to 1975 and categorized as either military or public to show the cluster of activity.

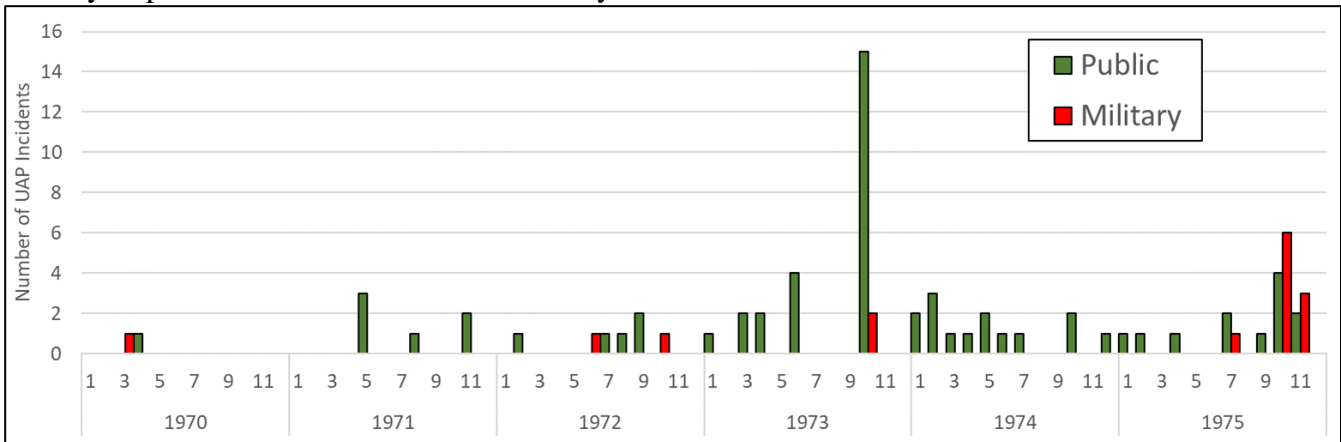


Figure 3-15. Monthly military and public incidents from 1970 to 1975

3.4. Combining Military/Public and Day/Night

During the study period, we see a shift from a combination of both military and public incidents prior to 1960, to predominantly public encounter incidents after 1960. To understand the impact from any change in UAP focus and the impact on the daytime vs nighttime balance, Figure 3-16 breaks down the incidents into both the military and the public, and the daytime vs nighttime. For both the military and the public, we see a shift from a mixture of daytime and nighttime incidents to predominantly nighttime incidents, so this shift to nighttime is occurring for both the military and public incidents.

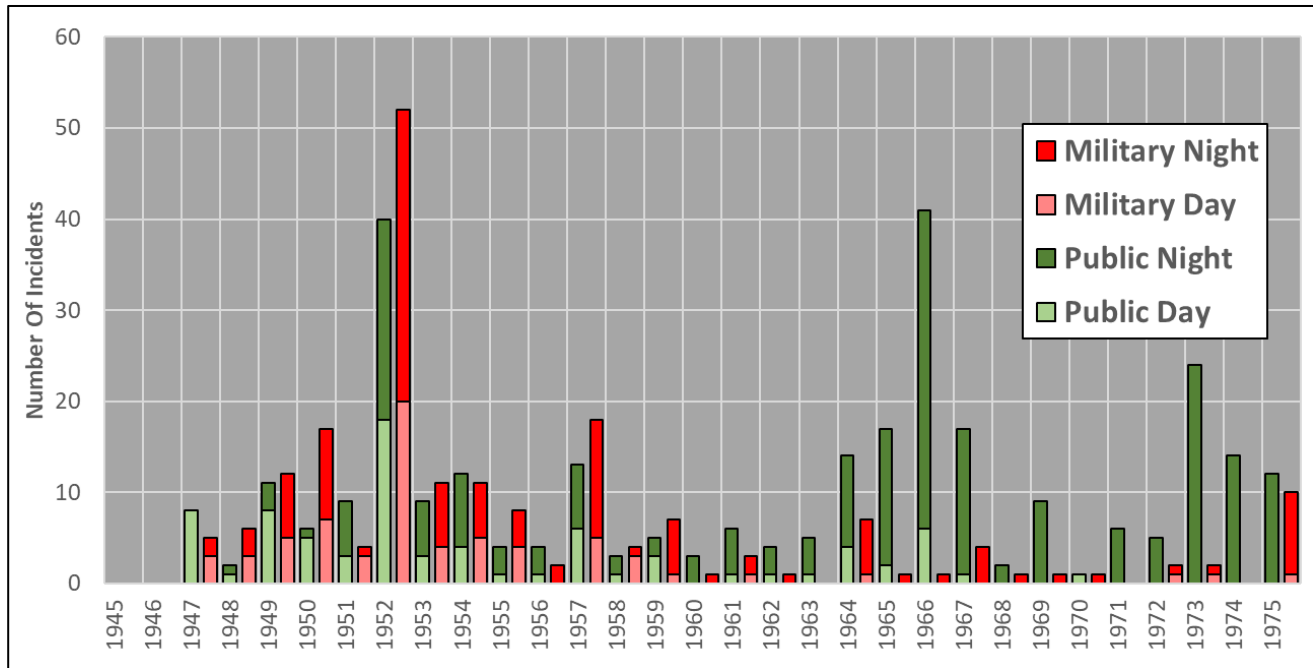


Figure 3-16. Total incidents grouped by military/public and day/night from 1945 to 1975

3.5. Total incidents reported from the NICAP database and Brad Sparks' Revised Blue Book Unknown catalog

Regarding overall UAP activity, the numbers, and peaks of UAP activity presented in this study can be related to the total number of reports found in the U.S. Air Force, Sparks and NICAP collections (during the period of this study, 1945 – 1975), and is shown Figure 3-17.

During the period of this study, the U.S. Air Force had 12,618 reports (with 701 designated as ‘Unexplained’), Sparks had 1,764 reports and NICAP had 3,093 reports. It should be noted that the databases included incidents for countries outside of the United States, and reflected similar patterns for elevation in UAP activity, when compared with incidents in the U.S. Due to incidents being documented in multiple collection sources (U.S. Air Force, Sparks and NICAP collections), part of the collection process involved the screening of duplicate reports to ensure each incident was included only once in the dataset.

There were several waves of UAP activities during the period 1945-1975:

- 1951 to 1953 had a very large wave of UAP activity, with a distinct peak in 1952.
- 1956 to 1958 had a smaller wave, with a distinct peak in 1957.
- 1964 to 1967 had a large wave, with a distinct peak in 1967, followed by a distinct drop in 1968.

Following the termination of Project Blue Book in 1969, the period during 1970 to 1972 showed low levels of UAP activity; however, NICAP reports showed an increase in incidents from 1973 to 1975, with a distinct peak in 1975 (largely due to activity at ICBM sites). It is difficult to determine if the low number of incidents during 1970-1972 was due to a low level of UAP activity or the cessation of formal Air Force collections.

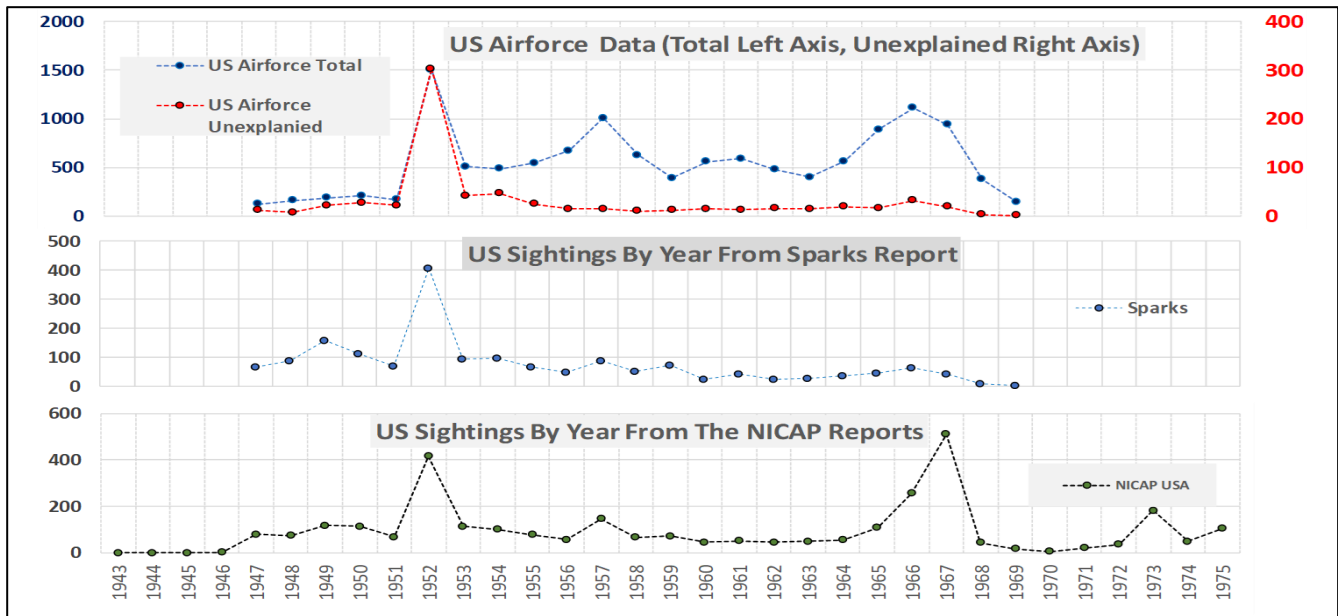


Figure 3-17. Number of incidents reported by U.S. Airforce, Sparks, and NICAP databases (1945 – 1975)

4. Comparison Among UAP Activity Types

Each incident was evaluated for nine categories of UAP activity:

1. Multiple UAPs in interactive flight
2. Radical flight
3. Electronic transmissions (non-coded and coded/Identification Friend or Foe)
4. Interference with weapons systems
5. Intrusions at military installations
6. Loitering
7. Close approach
8. Occupant observed
9. Occupant encounter

Figure 4-1 to Figure 4-3 show the comparison over time among the different activity classifications, for both the military and public domains. Where an incident could be classified under multiple classifications, the primary classification has been used so as not to double count incidents in this chart and to display the primary focus during the period. For example, an incident that involved military facility intrusion but also included loitering, would only be charted as an intrusion as the primary (most significant) activity for Figure 4-1 to Figure 4-3. The future sections looking at individual activity types will include all applicable activities.

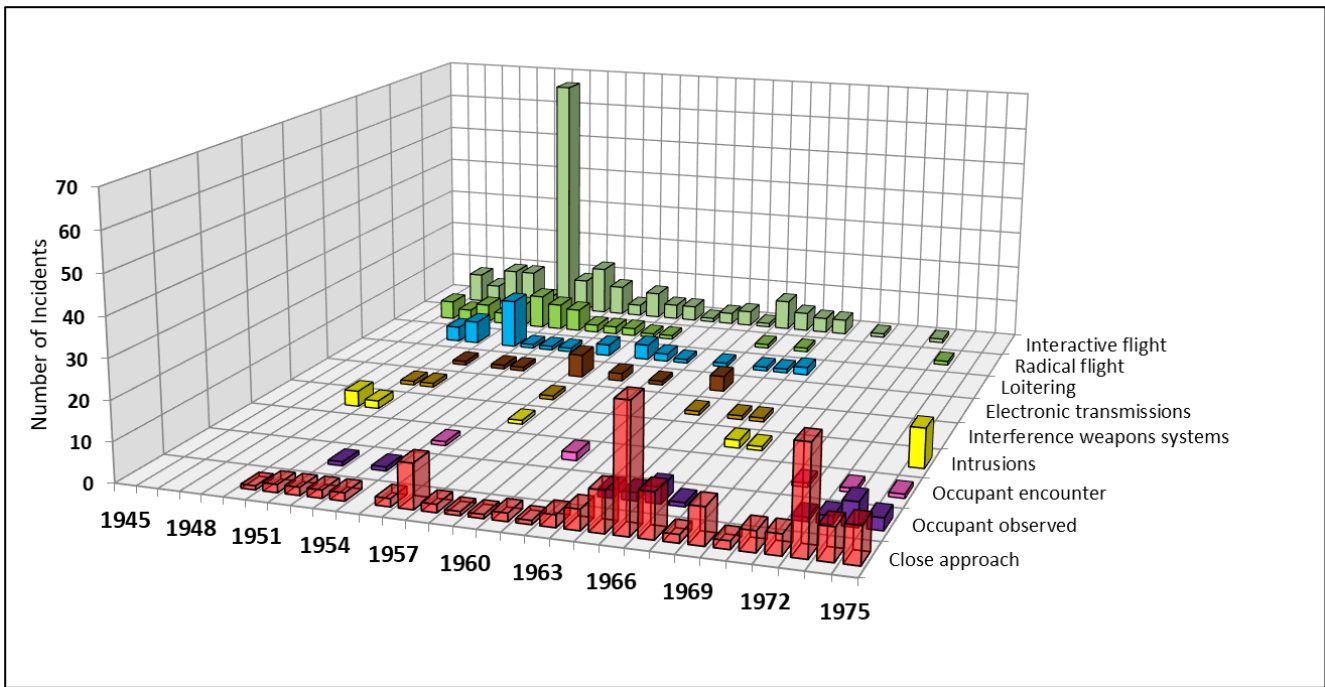


Figure 4-1. Number of incidents classified under the different activity types (3D bar-graph)
 Annual number of incidents for each activity classification showing the relative distribution of observed activities by year.

Figure 4-1. Number of incidents classified under the different activity types (3D bar-graph) and Figure 4-2 displayed below, display the same information, the only difference is the type of graph used (3D bar vs stacked bar). The inclusion of both types of graphs is to assist different readers to visualize the comparisons between activity types.

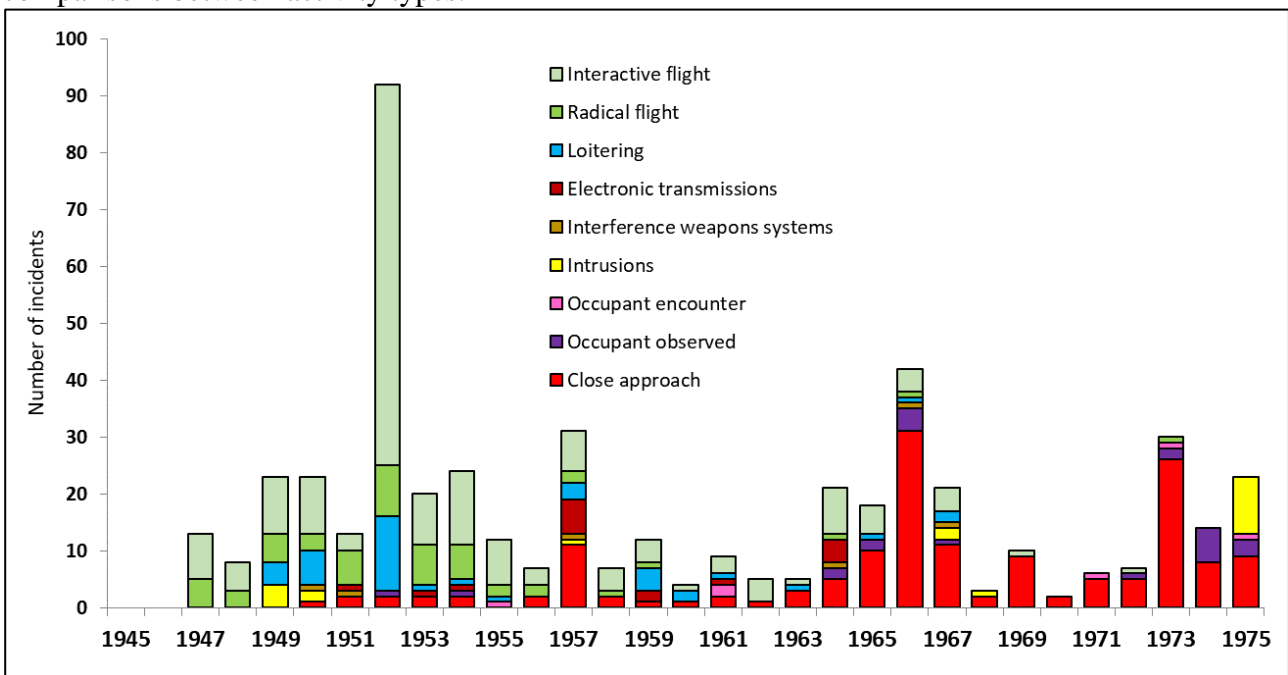


Figure 4-2. Number of incidents classified under the different activity types (stacked bar-graph)

To see the general trend over time, Figure 4-3 groups the incidents shown in Figure 4-2 into 5-year blocks (the last block is 1975).

Within the period of the study there is a clear change in UAP activity type over time.

- Starting in 1947 interactive and radical flight made up approximately 80% and then declined to low levels by 1975.
- The opposite occurred for UAP close approach, occupant observed, and occupant encounter, showing low levels starting in 1951 then growing to approximately 70% by 1975.
- Loitering was more prominent during the early to middle period of the study, from 1949 to 1959.
- Intrusions were interspersed and were aligned to various developments in the U.S. atomic warfare complex. 1949-1950 were related to the atomic development facilities and 1975 was related to the ICBM sites. Even in the early years when there was a greater number of daytime incidents, military incursions occurred exclusively at night.

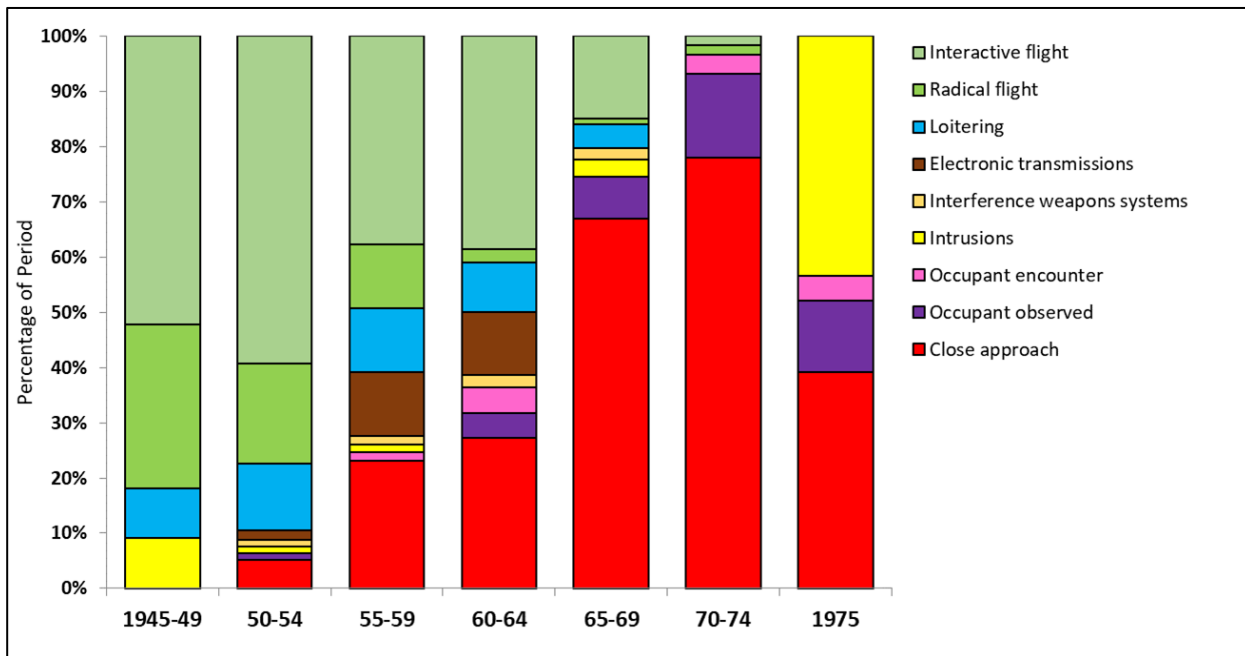


Figure 4-3. Comparison among activity types, grouped into 5-year blocks

5. Individual Activity Patterns with Military/Public and Day/Night Overlaid

The following charts show the distribution of incidents that occurred during the day vs. night, as well as involving military vs. public, based on individual behavioral activity type. The 505 incidents included in this study (white bars) are also shown as a relative comparison, with the height of each white bar being total annual incidents.

5.1. Multiple UAPs in interactive flight

Controlled interactive flight as shown in Figure 5-1 is suggestive of visibility, demonstration, and potential for mutual defense. Prior to 1952, interactive flight was greater during the day, while in later years, it occurred predominantly during the night. Overall activity decreased from 1954 onwards. During the UAP wave of 1952, the number of incidents reached a higher level than the 1957 and 1960s UAP waves.

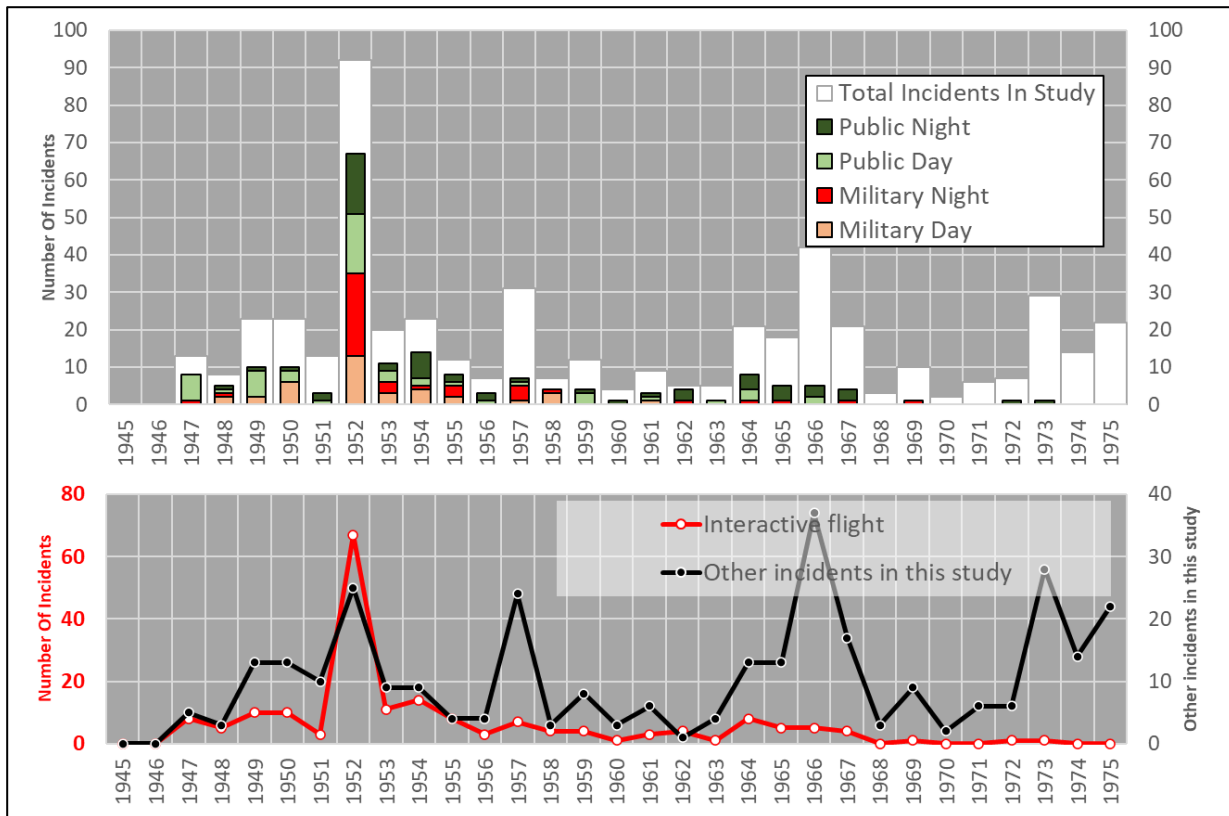


Figure 5-1. Total number of incidents involving multiple UAPs in interactive flight (broken down into both military/public and daytime/nighttime) compared to the total incidents in the study.

When we look at the numbers of incidents between the military and non-military aircraft in Figure 5-2, there were slightly more incidents with non-military aircraft. If the UAP was able to distinguish between our military and non-military aircraft, then this would give more weight to it being a display or demonstration related to messaging rather than an indication of a military capabilities survey.

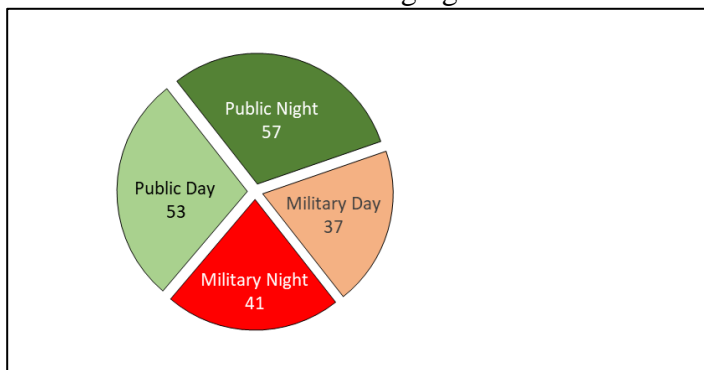


Figure 5-2. Total number of incidents during the study period (1945-1975) classified as multiple UAPs (182) in interactive flight and the distribution between Military/Public and Day/Night

Examples:

June 28, 1947. 30 miles NW of Lake Mead, Nevada 3:15 p.m. Army Air Force AAF pilot Lt. K. B. Armstrong flying an F-51 fighter out of San Antonio, at 6,000 feet observed Texas, observed a tight formation of 5-6 white circular objects off his right wing and pacing his aircraft for a time at a speed of 285 mph. (Sparks 10)

July 1, 1948. Rapid City AFB, South Dakota. An Air Force intelligence officer reported 12 oval-shaped discs, each about 100 ft long, flying in excess of 500 mph and descending from 10,000 ft. as they approached the base. The discs then made 30°-40° climbing turn accelerating very rapidly out of sight. (Sparks 95)

May 1, 1952. George AFB and Apple Valley, Calif. 10:50 a.m. An officer plus three airmen on the base arms range as well as a Lt. Colonel at a separate location 4 miles away saw 5 flat- white discs about the diameter of a C-47's wingspan [95 ft] flying very fast in a formation of three in front and two behind at an estimated a formation at 4,000 feet. In passing the objects also made a 90-degree turn. (Sparks 568)

July 26, 1952. Hampton and between Newport News and Langley AFB, Virginia. 12:15-12:45 a.m. Ground air defense spotters observed a brilliant, luminous silver, red and green object hovering over the James River Bridge at about 1,500 ft for 1/2 hour, then ascend towards the east where it was also observed by the Langley AFB tower. Air force crews of 2 F- 94's interceptors and additional ground observers also reported 4 round silver/bluish objects in V-formation as they shot straight up and disappeared at 5,000 ft – during those observations Navy ground radar at Norfolk and additional airborne aircraft also tracked unidentified objects. (Sparks 721)

April 12, 1953. Sweetwater, Nevada. 3:10 p.m. The co-pilot and crew members of a C-47 on route to Stead AFB, Nev., observed 10 round flat metallic objects changing formation traveling at high speed at an estimated 7,500 ft altitude. The objects passed under right nacelle of C-47 and the aircraft made a right turn for a better view – at that point the formation made a tight turn, sharper than that of the aircraft and were lost to view. (Sparks 957)

5.2. Radical flight

Radical flight involves extreme speeds and the ability to accelerate faster than the eye can follow, captures the observer's attention, and creates the impression that highly unconventional technology is associated with the UAP. Radical flight with extreme maneuvers, acceleration, or deceleration (seemingly instantaneous stops followed by holding a stationary position) is one of several activities that suggest UAP are not just unidentified, but truly anomalous objects operating with unknown technologies of unknown origin. Radical flight is suggestive of visibility, intelligent demonstration, and the potential for mutual defense.

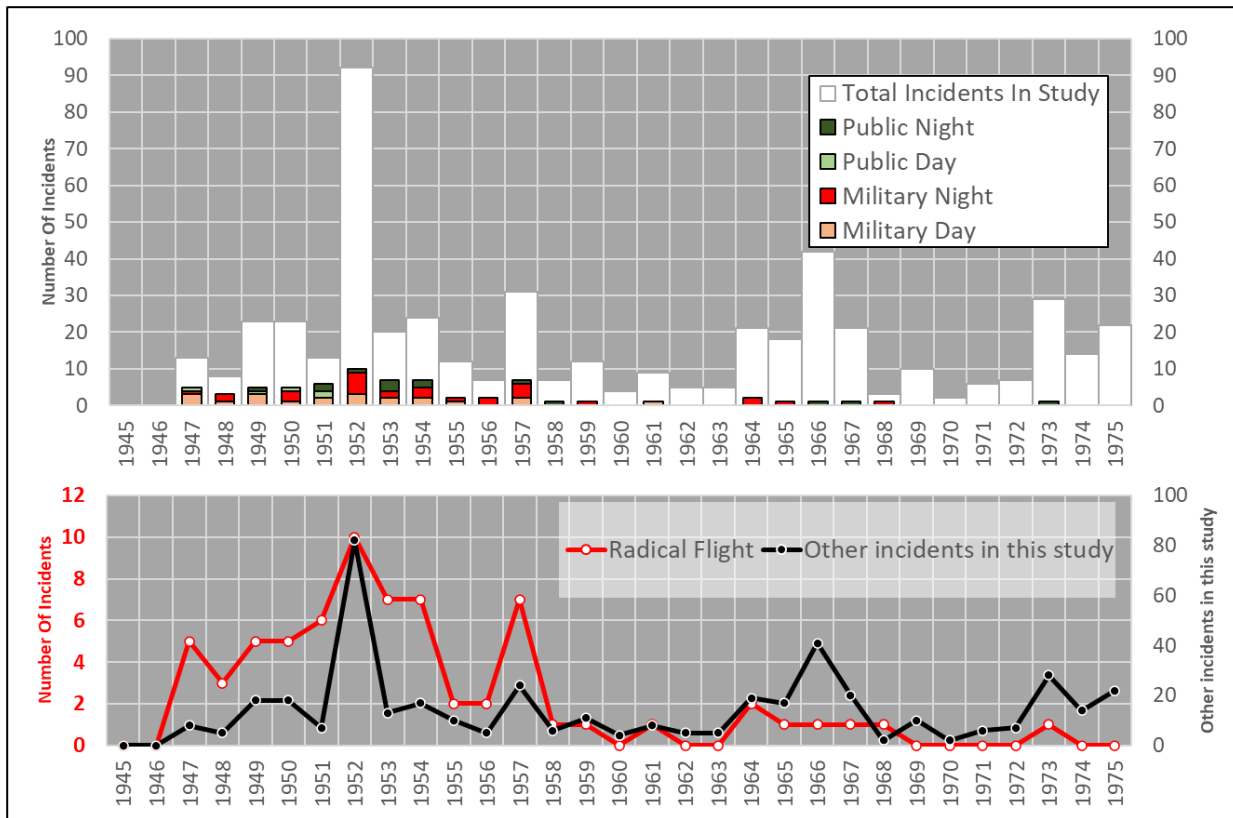


Figure 5-3. Total number of incidents involving UAP radical flight with extreme maneuvers, acceleration, and speed (broken down into both military/public and daytime/nighttime) compared to the total incidents in the study (1945-1975).

We find a noticeable difference between military observations and public observations (Figure 5-4), which show a much higher number of military incidents than the public. Nighttime incidence is greater after 1952 but is not significant on its own.

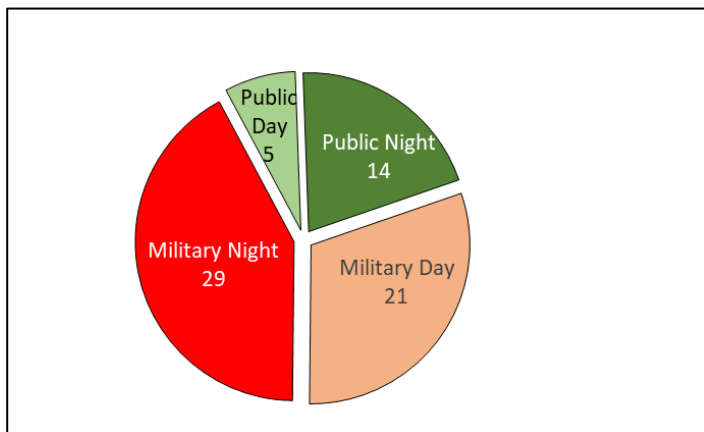


Figure 5-4. Total number of incidents during the study period (1945-1975) classified as UAP radical flight with extreme maneuvers, acceleration, and speed (69) and the distribution between Military/Public and Day/Night

Examples:

July 4, 1947. Portland and Milwaukie, Oregon, and Vancouver, Wash. 1:05 p.m. A large number of people including radio newsman Frank Cooley of station KOIN, INS wire service employees in the Portland Oregon Journal Building, Clark County Sheriff's Deputies, Portland police officers, Highway patrol officers and Harbor Patrolman all reported seeing 5 large discs moving together at high speed, with oscillating or wobbling motion and making sudden 90° turns as well as zig zag movements. The discs were aluminum/chromium color. (Sparks 19)

Jan. 10, 1953. 8 miles NW of Sonoma, Calif. At 4:45 p.m. a retired Air Force Colonel and an employee of the Federal Security Agency observed a flat, unidentified object traveling a speed above **2,000 mph** while making three 360° right turns in 2-3 secs. Each turn was estimated to involve force of some 300 g's as well as one eighth the distance required by a conventional jet aircraft. The turns were no more than 5 seconds apart and the object sped up, slowed, and finally departed vertically out of sight. (Sparks 913)

Jan. 1/2, 1954. Toms River, Marlton, Woodbury, and Surf City New Jersey. 10:35 p.m. – 12:05 a.m. a Navy pilot, a local police chief and several police officers as well as some 20 plus additional witnesses observed 3-12 round or oval white objects with fuzzy edges (slightly smaller than Full Moon) hovering in the sky for some 1.5 hours. Two objects circled around a third and then switched places with each other. The objects then suddenly departed to the SW at extremely highspeed growing smaller until disappearance in 1-2 secs covering about 60° of sky. Multiple independent witnesses across a baseline of at least 12 miles resulted in triangulation of the objects distance and height, later Air Force scientific consultant Robert Hynek calculated the UFO speed at departure to be in the **tens of thousands of mph** range. (Sparks 1003)

Jan. 13, 1967. SW New Mexico, NW of El Paso, Tex., to Flagstaff-Winslow, Ariz. 10 p.m. Pilot Carl M., a flight officer and passenger on a Lear Jet 23 at 41,000 ft saw a flashing red oval luminous object which split into 4 similar red oval objects each separated by an estimated 2,000 feet. The splitting occurred several times. Albuquerque radar tracked an unidentified object 39 miles ahead of the Lear jet moving on the same heading. Albuquerque control contacted a National Airlines DC-8 over Casa Grande, Ariz., whose pilot confirmed the Lear pilot's reports. Albuquerque control warned the Lear that the object suddenly darted towards the Lear at high speed within secs until the radar blips merged [**UAP traveled an estimated 39 miles in 10 secs or roughly 14,000 mph**]. Object flooded the Lear with intense red light so bright the pilot had difficulty seeing his instrument panel, and it maintained position in front of the Lear for a few mins then, then blinked out then came on again and started falling back behind the left wing, then pulled forward again. Both UFO and Lear jet made left turns over Winslow, Ariz., then Los Angeles Center radar picked up both targets. Past Flagstaff the object climbed at a 30° angle disappearing to the West. (Sparks 1712)

Oct. 24, 1968. About 30 miles NW of Minot AFB, North Dakota. 3:30-4:40 a.m. Minot AFB ground radar tracked an unidentified object correlated with an orange glow and alerted an incoming B-52H bomber in the vicinity of the base, advising that base radar placed the UFO some 3 miles from the bomber. The B-52 crew saw and radar tracked the bright red/orange object at 35 miles distance and moving at speeds estimated to be **3000-4,000 mph** in bursts of movement by the object. Additional UAP sightings were reported at several of the Minot ICBM sites during the period of the observations. (Sparks 1760)

5.3. UAP electronic transmissions

Electronic transmissions included a mix of broad-spectrum transmissions similar to "jamming" broadcasts, impacting the receiving aircraft's radar systems and interfering with its mission capabilities, including radar-directed-bombing. Other incidents involved select frequency transmissions, comparable to and, in some instances, the same as those used with military air defense radar systems.

“Identification Friend or Foe” (IFF) is an identification system that uses an aircraft or other vehicle mounted-transponder engineered to detect a coded frequency-specific interrogation signal and then sends a separate coded frequency-specific response that identifies the aircraft/vehicle. To produce a correct IFF response, the UAP would need to be configured for the correct interrogation query and be able to respond with the correct coded response when triggered by a specific interrogation frequency. If a UAP with advanced technology sent an IFF response, it would be considered a deliberate act of messaging. Given the complex and coded nature of an IFF response, it is unlikely to be either an equipment or transmission error. In the absence of contemporary technology that is engineered to function as a transponder, the ability of UAP to receive and respond to signals using specific frequencies would require the ability to detect signatures unknown to any previous or current technology resources.

Electronic transmissions recorded in this study involved two forms (non-coded and coded). Non-coded transmissions included reports of both discrete frequencies either similar to or identical with frequencies associated with surveillance/object tracking radar systems, as well as reports of mixed/changing frequencies – often referred to as “noise” in the reports. In military reports, the occurrence of noise with strong signal strengths was frequently interpreted as an attempt to interfere with (“jam”) the operation of air defense radars. When reported by SAC bombers, this type of interference also disabled or diminished radar bombing capability.

Coded transmissions occur at preset frequencies and those frequencies contain encoded patterns of information used to query and obtain responses from aircraft for identification purposes. Discrete codes are used in both the query and response transmissions and are preset to identify the object in question and provide information about it (originally the use of coded transmission was developed to discriminate friendly from hostile aircraft).

While small in numbers, a cluster of six incidents occurred in 1957 (Figure 5-5), with three of these incidents occurring on three consecutive days in July. A further four incidents occurred in November 1964 and these incidents occurred during an eight-day period, all reported by the US Navy in the Caribbean.

Individual spikes in activity were observed and, given that the transmissions in question were recorded by airborne Strategic Air Command aircraft, the spikes may correlate to the initiation of airborne alert missions (with the first Head Start mission flown in 1958 and the larger scale Chrome Dome missions flown from 1960 to 1968).

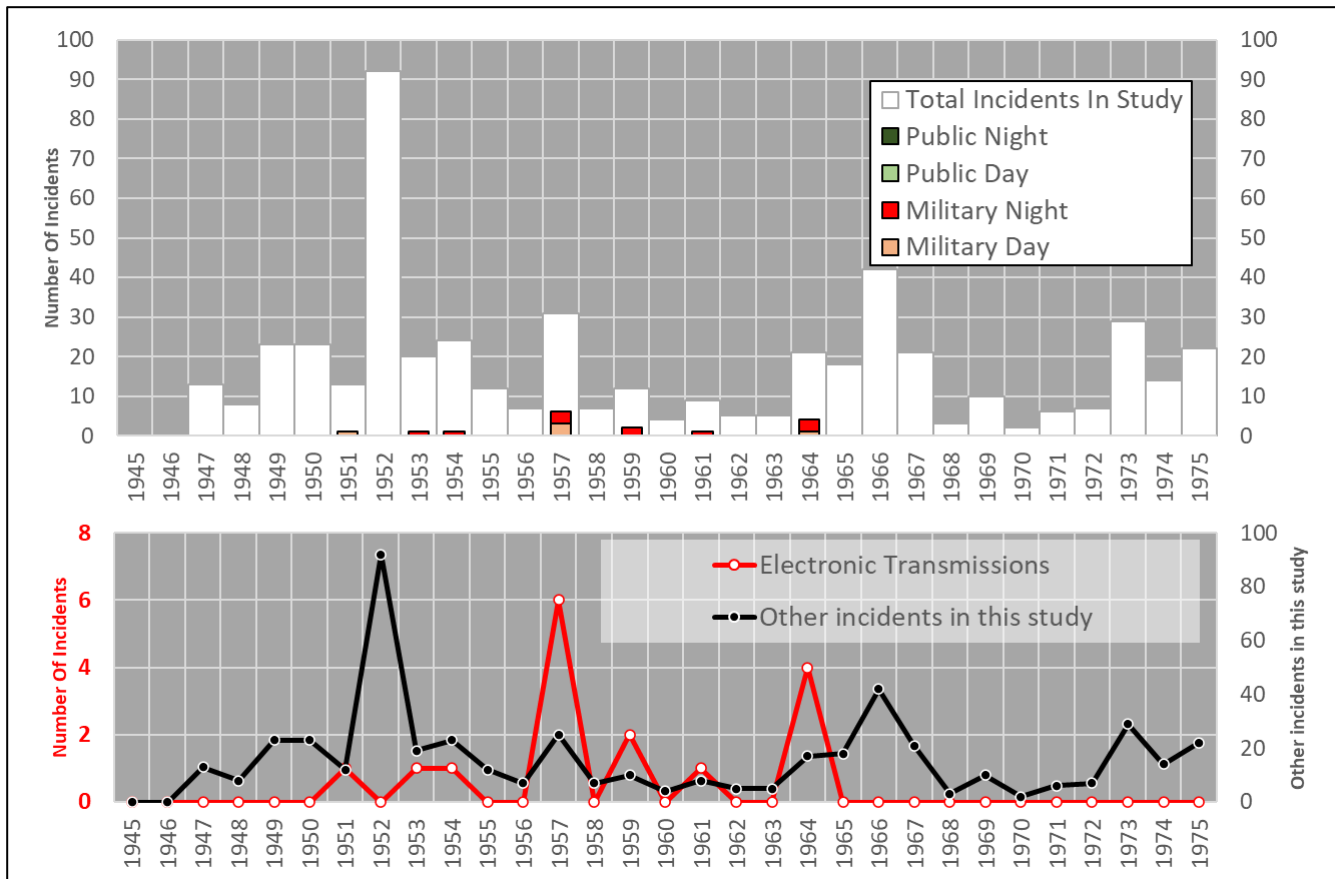


Figure 5-5. Total number of incidents involving UAP electronic transmissions (broken down into both military/public and daytime/nighttime) compared to the total incidents in the study (1945-1975).

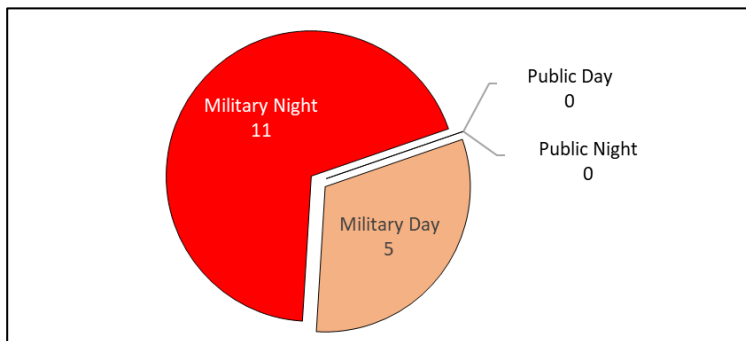


Figure 5-6. Total number of incidents during the study period (1945-1975) classified as UAP electronic transmissions (16) and the distribution between Military/Public and Day/Night

Examples:

July 17, 1957. A Strategic Air Command RB-47, with a specialized electronics intelligence platform flying with a crew of ELINT and electronic countermeasures specialists, was on a training flight from Kansas over the Gulf of Mexico during the early morning hours. Its initial contact with an unknown aerial object was the detection of what appeared to be a ground-based search radar beam, but one whose source was apparently airborne and in motion, crossing the plane’s flight path. From that point on the encounter involved a series of apparent radar transmissions from a maneuvering aerial object –

whose movements matched those of a brilliant light that tracked the plane - and with concurrent appearances of the object on the aircraft's own search radar ([Clark, J](#)) and 6200 MPH Target Hovers Near Grand Canyon, NICAP ([NICAP 570716](#)). At times the UAP simply moved along with the aircraft, at other times it apparently moved ahead of it and waited for RB-47 to pass. The entire encounter occurred over a span of approximately two hours and some 800 miles distance. (Sparks 1238)

From July 16 to July 18, 1957, an air defense radar station outside Las Vegas, Nevada (Mount Lemmon) tracked an extremely high-speed unidentified target (estimated at 6,200 mph) for a very short time before it became stationary. The UAP remained airborne and stationary for over 32 minutes, apparently hovering at 42,000 feet altitude. The target then departed at a similar and possibly faster speed, until it disappeared beyond radar range. During the time the search radar acquired the target, it appeared to respond to an encrypted military IFF transponder signal. The UAP was sent a command to identify itself from the air defense site. In turn, the UAP sent back coded elements of an appropriate IFF response. A similar incident had been reported two days earlier by the same crew at the radar site; the incidents of those two days were unique, with no similar report either before or afterward. Analysis of the event - The object was tracked at 6,200 mph. For reference, at that time, the fastest plane was the Fairey Delta 2 at 1,132 mph ([Royal Air Force](#)). The UAP then became stationary for over 32 min and transmitted a IFF signal. Combining both the incredible speed and ability to stop and stay stationary strongly suggests this was not an aircraft available at the time, either friend or adversary. (A speed of 6,200 mph and hovering would put it outside of current known capabilities today, too.) Given the fact that the UAP also transmitted an IFF response raises the possibility that it was not a radar anomaly and that the IFF transmission was a deliberate act, perhaps a test or potentially a form of messaging. (Sparks 1238)

Sept. 20, 1957. Montauk AFS, New York, Benton Air Force Station (Air Defense Command), Pennsylvania, 2:05:48 p.m. Radar track data corrected from detailed NORAD map plot (with supplemental data): At 2:05:48 p.m. Montauk Point began tracking on NORAD-ADC radar FPS-20 (modified FPS-3) a high-speed target moving at several thousand mph (4,000-7,000) coming from the Atlantic on a path from East/Southeast to West/Southwest at over 50,000 feet altitude. Successive radar sweeps produced a plot of the objects speed varying minute by minute and both decreasing and increasing during the tracking but with the speed consistently at or above 2,000 mph. during a 2-minute period. The object was interrogated with IFF transmissions and responded with IFF Mark X encoded reply. Benton Air Force station near Boston correlated similar tracks to Montauk. An interception by two F-102 jets out of Kinross AFB, Michigan was attempted unsuccessfully; a second intercept by two more jets out of Truax, Wisconsin was also unsuccessful. The object appeared to proceed towards Buffalo, New York but changed course to move towards SAC headquarters at Omaha, Nebraska with radar track disappearing west of Buffalo, at altitude above 100,000 feet and still at a speed of several thousand mph. (Sparks 1253)

Nov. 26, 1957. West Mesa AFS, New Mexico. 8:41 p.m. Airmen Montoya, Bazinette and Scott at 687th aircraft control and warning radar site tracked an unknown target at 3,000 knots (3,500 mph). The target was interrogated with an IFF transmission and responded with an encrypted Mode 3 transponder response. (Sparks 1292)

Nov. 24, 1964. Caribbean NE of Puerto Rico. 8:55 a.m. (EST). US Navy Atlantic Fleet Weapons Range (AFWR) radar tracking of unidentified object on NNE course 30° from 19°07' N, 65°05' W, to 19°52' N, 64°45' W, emitting encrypted IFF Mode 1 transponder signals. DF-8 fighter at Mach 0.99

(650 mph) at 45,000 ft vectored for intercept but object accelerated and flew upwards beyond the fighter’s ability to follow. (Sparks 1595)

5.4. UAP Interference with weapons systems

Interference with weapons systems as shown in Figure 5-7 is suggestive of specialized interest, demonstration, and intervention. UAP interference with a strategic atomic weapons installation or atomic weapon-carrying aircraft represents an overt act to disrupt or prevent atomic warfare.

Due to insufficient data, patterns and trends for military weapons systems interference could not be established. There was a total of six incidents documented for the military domain; however, no incidents involving a similar effect on conventional weapons were identified. Although incidents in this category were consistent with elevated activity for other categories, the number of incidents was insufficient to establish a pattern.

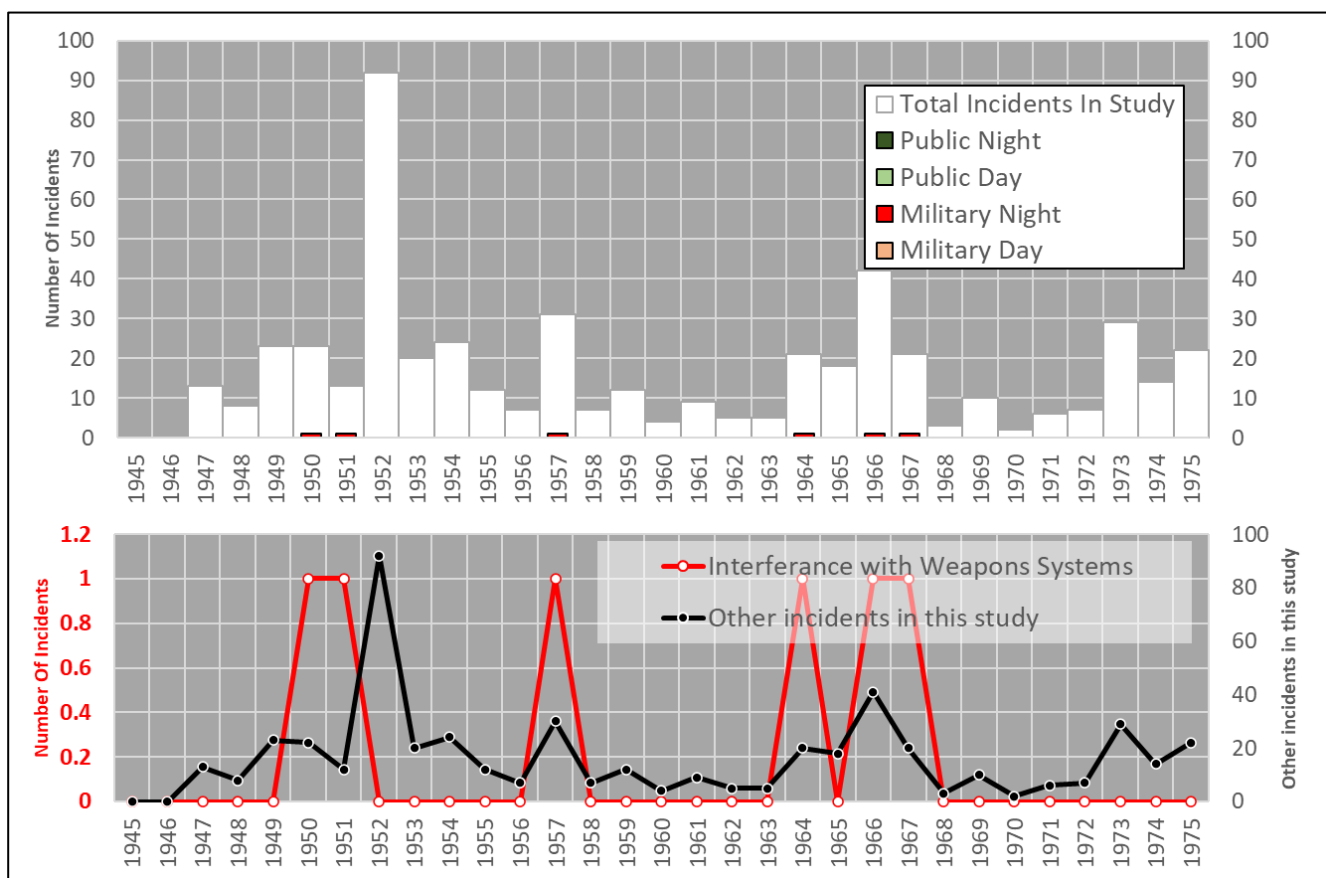


Figure 5-7. Total number of incidents involving UAP interference with weapons systems (broken down into both military/public and daytime/nighttime) compared to the total incidents in the study (1945-1975).

Intrusion over the study period (1945-1975) occurred at night (Figure 5-8). The overall number of six incidents is low, so this is not a strong indicator of a nighttime preference on its own. However, when combined with the 35 incidents from UAP intrusion at military facilities (Figure 5-10) which occurred at nighttime 97% of the time, a stronger indicator for nighttime is observed.

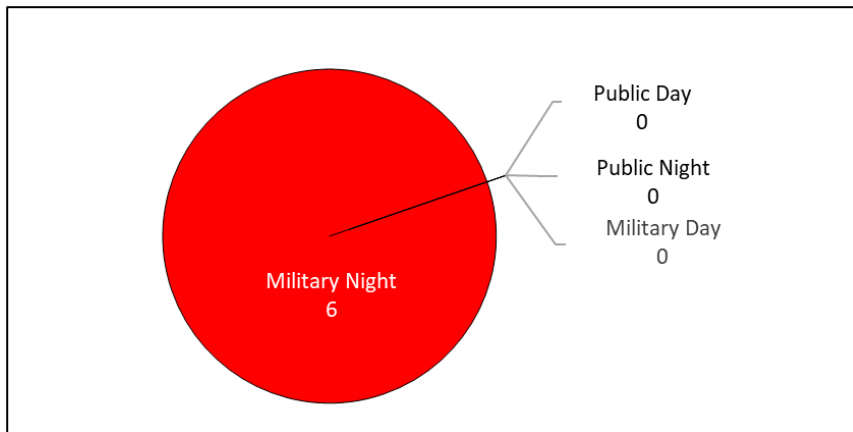


Figure 5-8. Total number of incidents during the study period (1945-1975) classified as UAP interference with weapons systems and the distribution between Military/Public and Day/Night

Examples:

February - March –1967, Malmstrom AFB in Montana experienced an ongoing series of UAP incidents involving low altitude unidentified lights. Reports include UAPs hovering adjacent to security gates and missile silos. On March 16 two flights (Echo and Oscar) reported an extended series of UAP activities, security alarms were triggered, and armed teams dispatched to multiple missile locations. Maintenance and security personnel at multiple missile silos reported unknown aerial objects in their vicinity. (Sparks 1730, 1731, 1733)

At least one flight of 10 ICBM's (Echo flight) was officially recorded as having unexplainably gone off alert status. There were also persistent reports from Air Force personnel on the base at the time that one other flight (Oscar) had also gone off alert status. The Echo flight missiles were later officially determined to have gone offline due to a control system fault triggered an “externally generated signal”, source unknown ([Salas and Klotz, 2005](#))

It should also be noted that while the missile wing's unit history notes UAP reports, they were all dismissed – with the unit historian being on record as having been told to edit that section of the history record. The only contemporary record of the incidents, from March 17, 1967, is a message sent to SAC expressing “grave concern” because the cause for the missiles going offline could not be identified.

5.5. Intrusion at military facilities

UAP reported to have violated the immediate security perimeter of a military installation, demonstrates the ability to circumvent physical barriers in a manner to obtain access to sensitive information or to potentially disrupt operations.

Intrusion at military facilities as shown in Figure 5-9 is suggestive of specialized interest and demonstration. While the overall number of intrusion incidents is low, they do align with patterns identified in the UAP Pattern Recognition Study ([Hancock et al, 2023](#)), these being the establishment of the atomic warfare facilities during the mid to late 1940s, the full deployment of Minuteman ICBMs in 1966-1967 and full deployment of Minuteman III ICBM with Multiple Independent Reentry Vehicle (MIRV) by 1975.

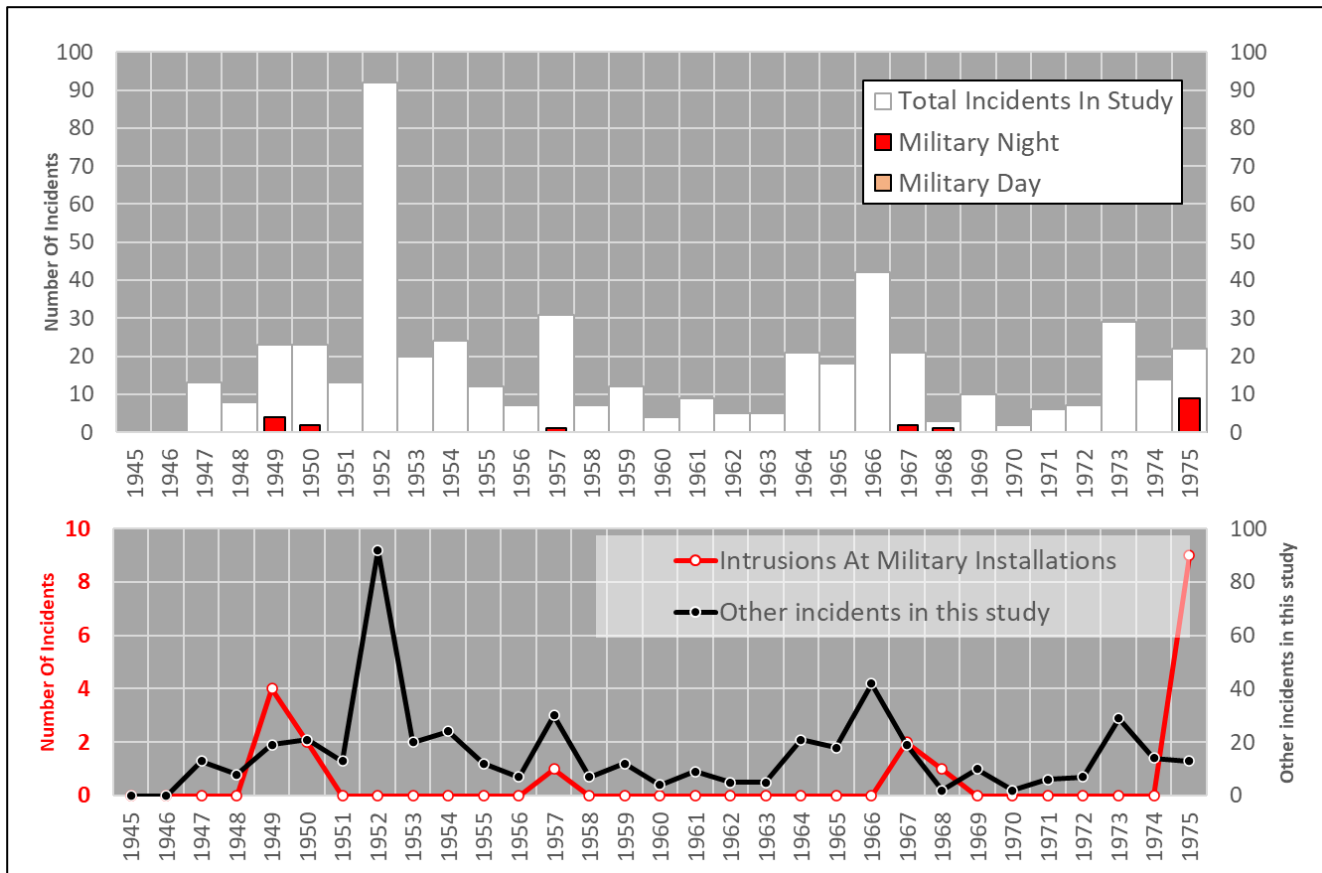


Figure 5-9. Total number of incidents involving intrusions at military facilities (broken down into both military/public and daytime/nighttime) compared to the total incidents in the study (1945-1975).

Intrusion over the study period (1945-1975) occur almost exclusively at night (Figure 5-10)

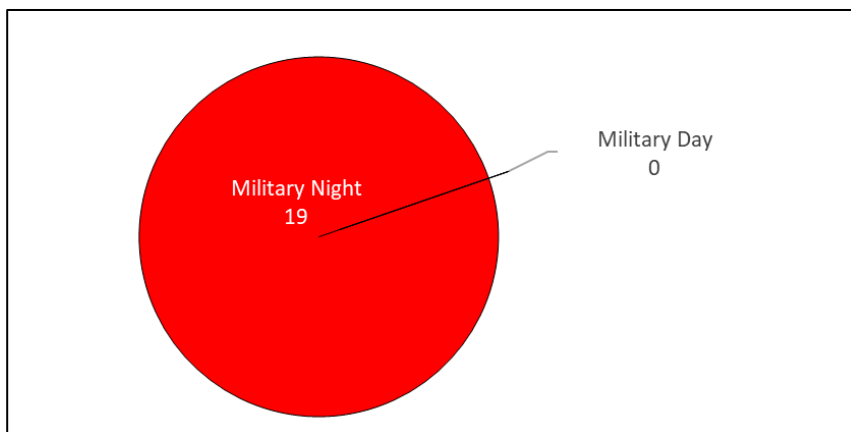


Figure 5-10. Total number of incidents during the study period (1945-1975) classified as UAP intrusions military facilities (19) and the distribution between Military/Public and Day/Night

Examples:

February - March –1967, Malmstrom AFB in Montana experienced an ongoing series of UAP incidents involving low altitude unidentified lights. Reports include UAPs hovering adjacent to security gates

and missile silos. On March 16 two flights (Echo and Oscar) reported an extended series of UAP activities, security alarms were triggered, and armed teams dispatched to multiple missile locations. Maintenance and security personnel at multiple missile silos reported unknown aerial objects in their vicinity. (Sparks 1730, 1731, 1733)

October 24, 1968, Minot AFB, North Dakota. Multiple radar tracks were observed, approaching both the base and an incoming B-52 aircraft. Security personnel reported an unidentified object landing and continued to observe it for some 45 minutes. Additional UAP reports were made from several sites of the 91st Strategic Missile Wing. In addition, a variety of anomalous electromagnetic effects were registered on radio and radar and security alarms were activated at outer and inner rings around silos. Official reports state that the outer [silo?] door of one location had been opened, and the combination lock of the inner door moved (Sparks 1760)

October 27 – 31, 1975, Loring AFB in Maine reported an incursion with a UAP entering a high security zone within 300 yards of the atomic weapons storage area. Similar reports from Loring throughout October became part of what was known as the “northern tier UFO wave” and are documented in several NORAD and NMCC internal communications. In October 1975 in October Wurtsmith AFB in Michigan reported a base incursion with a UAP approaching and hovering over the weapons storage area. A series of UAP incidents were reported to NORAD, the National Military Command Center at the Pentagon, the Air Force Chief of Staff and Strategic Air Command headquarters. In response a Security Option 3 message was sent to all SAC installations across the northern border – Pease, Plattsburg, Wurtsmith, Kinchloe, Sawyer, Grand Forks, Minot, Malmstrom, Fairchild, and even Barksdale AFB in Louisiana ([Fawcett and Greenwood, 1984](#)).

November/December 1975, Malmstrom AFB, reported multiple waves of UAP incidents which included an apparent physical incursion involving ICBM silo security gates (site security alarm triggered) and possible attempted access to one missile silo. One Air Force communication refers to a “Faded Giant” incident which is the term for tampering with or loss of control over a nuclear weapon. A Faded Giant incident had previously occurred on one and possibly two instances at Malmstrom in 1966. The UAP security incidents at “Northern Tier” Strategic Air Command bases are summarized in a Commander in Chief NORAD message of November 11, 1975, which refers to the series of UFO incidents at American and Canadian bases. The message expresses concern over possible press coverage and the need to come up with appropriate public responses ([Fawcett and Greenwood, 1984](#)).

5.6. UAP Loitering

Loitering as shown in Figure 5-11 is suggestive of visibility, demonstration, and specialized interest. Loitering incidents not only afford better descriptions of the UAPs involved but also allow for additional observers to respond and become involved, including police or other law enforcement in the public domain and interceptors in response to radar tracking.

Overall, UAP loitering occurred predominantly during the night rather than the day. In terms of the military vs public split, there was a much larger number of military loitering incidents between 1949 and 1959, and the public loitering was greater during 1966-1967. The relative number of incidents were in the early to mid-part of the study period.

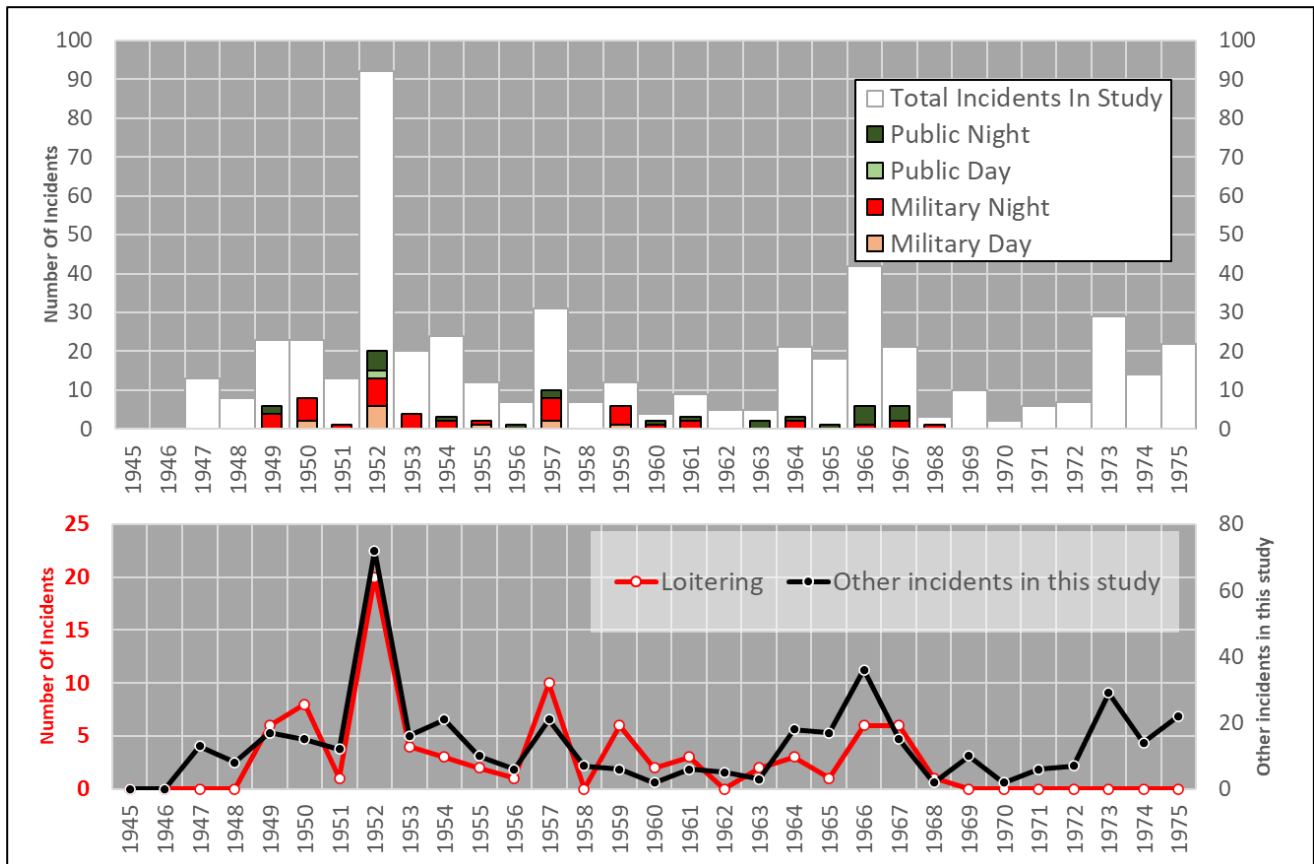


Figure 5-11. Total number of incidents involving UAP loitering (broken down into both military/public and daytime/nighttime) compared to the total incidents in the study (1945-1975).

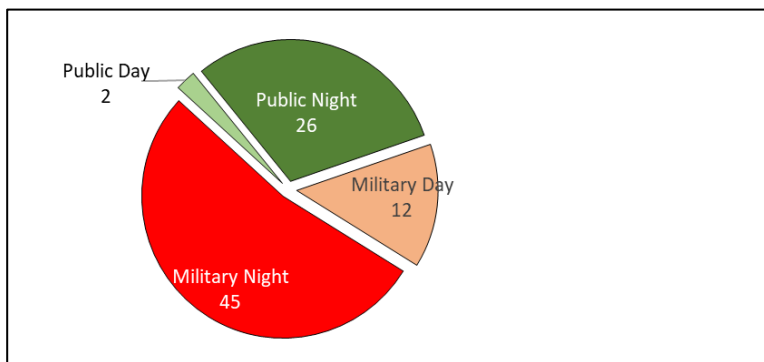


Figure 5-12. Total number of incidents during the study period (1945-1975) classified as loitering (85) and the distribution between Military/Public and Day/Night

Examples:

May 7, 1949. Killeen Base/Site B [Nuclear Weapons National Stockpile], Camp Hood, Texas Lt. Mardell E. Ward, at the Plotting Center (command post) of the Army’s observation and triangulation network, and artillery observers at 3 other network observation sites, spotted a brilliant white diamond-shaped object at a triangulated location 24,000 ft away and a height of 1,300 ft. The object’s size was measured at approximately about 72 ft long and it was tracked for 40 minutes over a path of 15 miles at extremely slow speed. (Sparks 222)

July 19-20, 1952. Andrews AFB and Washington National Airport, Washington, D.C. 11:40 p.m.-6 a.m. (EDT). Numerous visual, radar and radar-visual sightings by ground observers and both commercial and military pilots in the air – with military interceptors dispatched in response to the reports. (Sparks 693) This incident was followed on July 26-27 when Andrews AFB and Washington National Airport, Wash., D.C. radar operators tracked similar objects for over 3 hours with the objects being reported by both commercial and military pilots. (Sparks 730)

Nov. 4, 1957. Kirtland AFB and Manzano Base/Site A National Nuclear Stockpile, Albuquerque, New Mexico. 10:45 p.m. Air traffic controllers R. M. Kaser and E. G. Brink observed visually and on radar a highly maneuverable 15-20 ft egg-shaped object with a white light at its base circle over the west end of the base and dive down as if landing to about 1500 ft. Radar tracked part of this maneuver. The object then very slowly crossed the aircraft flight line, runways and taxiways heading towards the tower at about 50 mph at 20-30 ft above ground. After crossing the tower area, it hovered over the atomic weapons storage area and a B-58 bomber service site for up to one minute before climbing steeply away from the base. The controllers tracked the object on radar as it circulated a low frequency radio range station and moved away only to return 20 min later and follow an Air Force C-46 that had just taken off the base until both went off radar at about 14 miles; the object then returned and briefly hovered in the vicinity of the base. (Sparks 1267)

Sept. 24, 1959. Near Redmond, Oregon about 4:00 a.m. a Redmond Police officer reported an incident lasting over two hours in which he observed an unidentified bell-shaped light descend over and hover near a local airport lighting up trees in the area. When he drove toward it the object moved into a rapid climb to some 3,000 feet and remained in the vicinity of the airport. Upon arrival at the airport an FAA flight service specialist joined him and others in viewing the object and as it remained stationary; the object was reported to the FAA and the police officer drove on towards it until within some 2-3 miles at which point it suddenly climbed into a broken cloud deck, lighting the clouds in passing. (Sparks 1420)

Oct. 24, 1968. About 30 miles NW of Minot AFB, North Dakota. 3:30-4:40 a.m. Minot AFB ground radar tracked unidentified object correlated with orange glow and radioed it to the attention of the crew of B-52H bomber approaching the base. At 3:52 a.m., Minot radioed the B-52H that base weather radar was also tracking target now at 1 o'clock position and 3 miles from the B-52H. Radar scope photos show immense bursts of acceleration if only one object was involved. The object then reportedly landed or descended and hovered in an area of the base for some 45 min. Security personnel reported additional incidents during the same period. (Sparks 1760)

5.7. Close Approach

Observer reported UAP at a distance and observed the UAP to close that distance in the immediate direction of the observer. For the purposes of this study, “close approach” required a distance that allowed viewing and reporting of physical characteristics of the UAP.

Close approaches to observers, especially when controlled and carried out with the UAP, either passing the observer at very slow speed or holding position at a distance where structural details or light assemblages are clearly visible, not only capture the observer’s attention but if carried out with no appreciable noise, creates the impression that highly unconventional technology is associated with the UAP. This is especially true with incidents where the UAP remains at a distance proximate to the observer for periods of time extending to 15-30 minutes with no or limited movement. In either

instance, the observers see themselves as the focus of UAP attention and the UAP activity is perceived as intelligent and focused.

Close approaches increased during the wave of 1957 and then ramped up from 1961 through to a wave in 1966 as shown in Figure 5-13. In contrast, the close approaches were not high during the U.S. national wave of 1952 and close approaches were predominately public reports rather than military as shown in Figure 5-14.

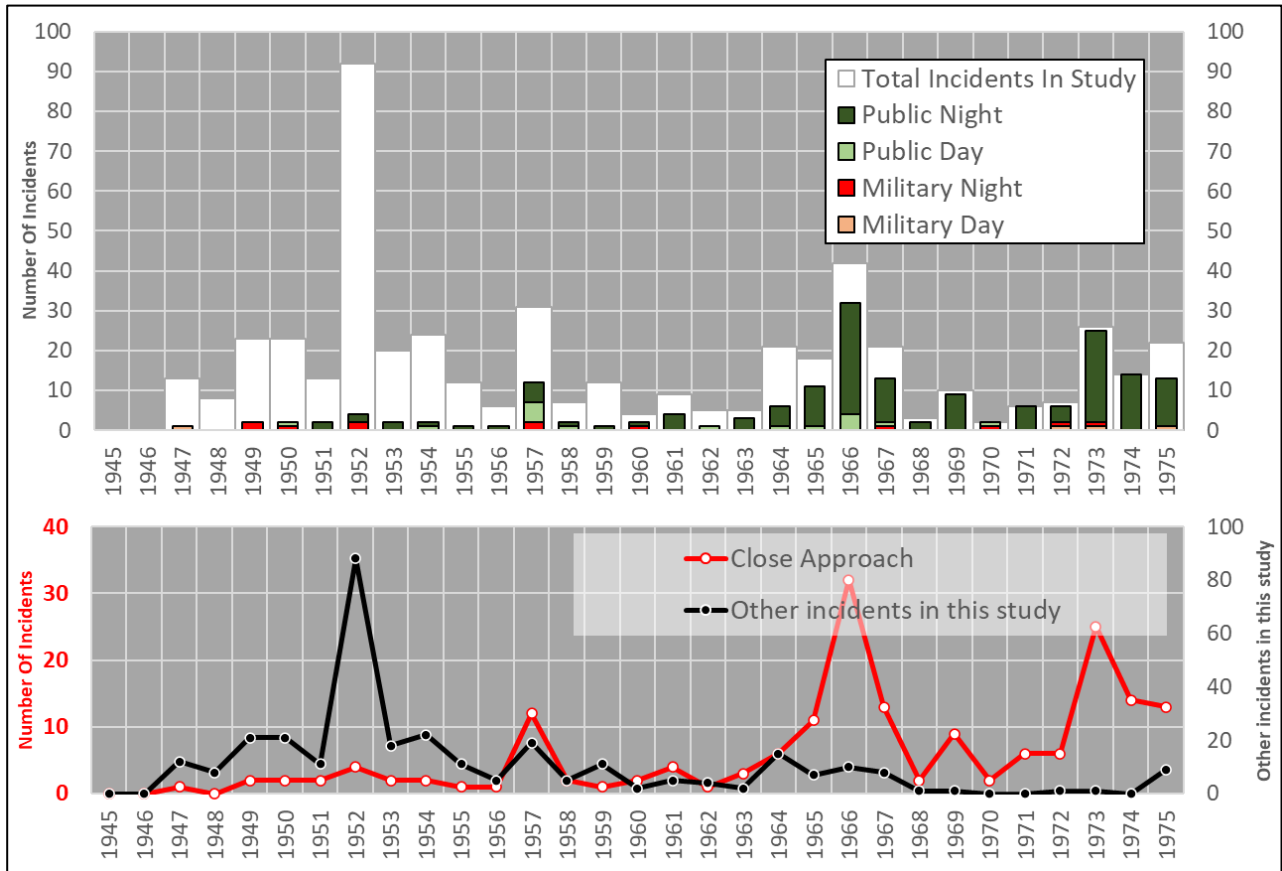


Figure 5-13. Total number of incidents involving UAP close approach (broken down into both military/public and daytime/nighttime) compared to the total incidents in the study (1945-1975).

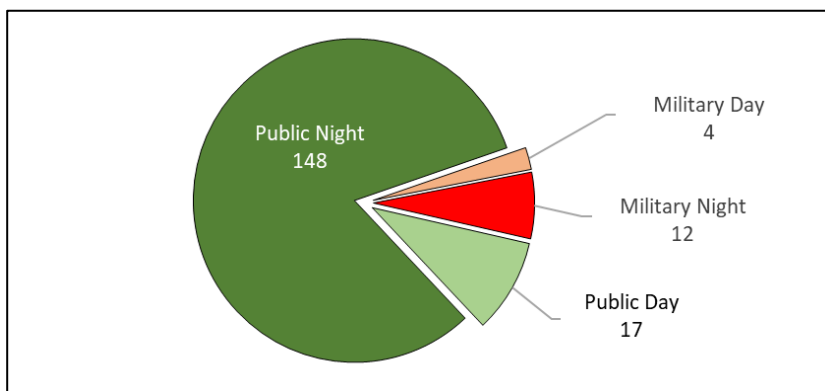


Figure 5-14. Total number of incidents during the study period (1945-1975) classified as close approach (181) and the distribution between Military/Public and Day/Night

Examples:

July 8, 1947. Muroc Army Airfield, Calif. Army Air Force personnel and a civilian reported 2 disc-shaped or spherical objects, silver and apparently metallic, which flew a wide circular pattern at an estimated 7-8,000 feet overhead before departing; a second report related that as the first objects departed a similar disc approached and was observed flying tight circles above the airfield by five additional Army personnel (Sparks 33)

Nov. 7, 1957. Amarillo, Texas. 7:45 p.m. AEC security guards and a Texas highway patrolman at the Pantex plutonium nuclear weapons assembly plant sighted 3 flashing objects that hovered for 30 mins over the plant. only 50 ft in the air. A responding highway patrolman said the guards were "all shook up" when he got there. One object reportedly landed offsite and when the guards attempted to approach it, but every time they got near, the object would slip away. (Sparks 1282)

March 5, 1967. Minot AFB, North Dakota. Air defense radar tracked an unidentified target descending over the Minuteman ICBM missile silos of the 91st Strategic Missile Wing. Base security teams saw a metallic, disc-shaped object ringed with bright flashing lights moving slowly, maneuvering, then stopping and hovering about 500 ft above ground. Object circled directly over the launch control facility. F-106 fighters were scrambled but at that moment object climbed straight up and disappeared at high speed. (Sparks 1723)

April 17, 1967. Four miles from Jefferson City Airport, Missouri at 9:05 p.m. school principal John L. Metz and 3 teachers in separate cars who were also driving home behind him saw a huge 350-400 ft diameter bluish-white helmet-shaped object come over the Missouri River cliff at an estimated 300-400 ft altitude when directly overhead. It bathed their cars in intense light and hovered over a power line for some ten minutes before heading towards the airport – where two more witnesses also observed it. (Sparks 1737)

July 30, 1974; Solitude, Indiana 8:50 p.m. A couple and their little boy were on their way home from a play when they observed an object silhouetted against the moonlit haze in the southwest. Although a few miles away, the object had a clear cigar shape with three white lights. They continued driving down the highway and, as they got over the top of some hills, the object started to descend, getting larger and larger all the time. Right at the bottom of the hill they slowed down and the object appeared to be hovering. It was approximately a hundred yards from them then, and it was moving, but very slow. It had four lights on it, two on each end, the object was long and slender, cigar-shaped. At the closest it was above the family as low as 50 feet. At one time "it was just right above us, maybe 50-60'. (NICAP Chronology)

5.8. Occupant Observed

A small number of incidents in our data included reports of occupants either inside the UAP or directly associated with it as shown in Figure 5-15. No chronological pattern is associated with this series of reports, or the observers' descriptions of the occupants, which varied. The only apparent commonality in the reports is that they came from the public domain rather than the military, and that the incidents were described as occurring at night as shown in Figure 5-16.

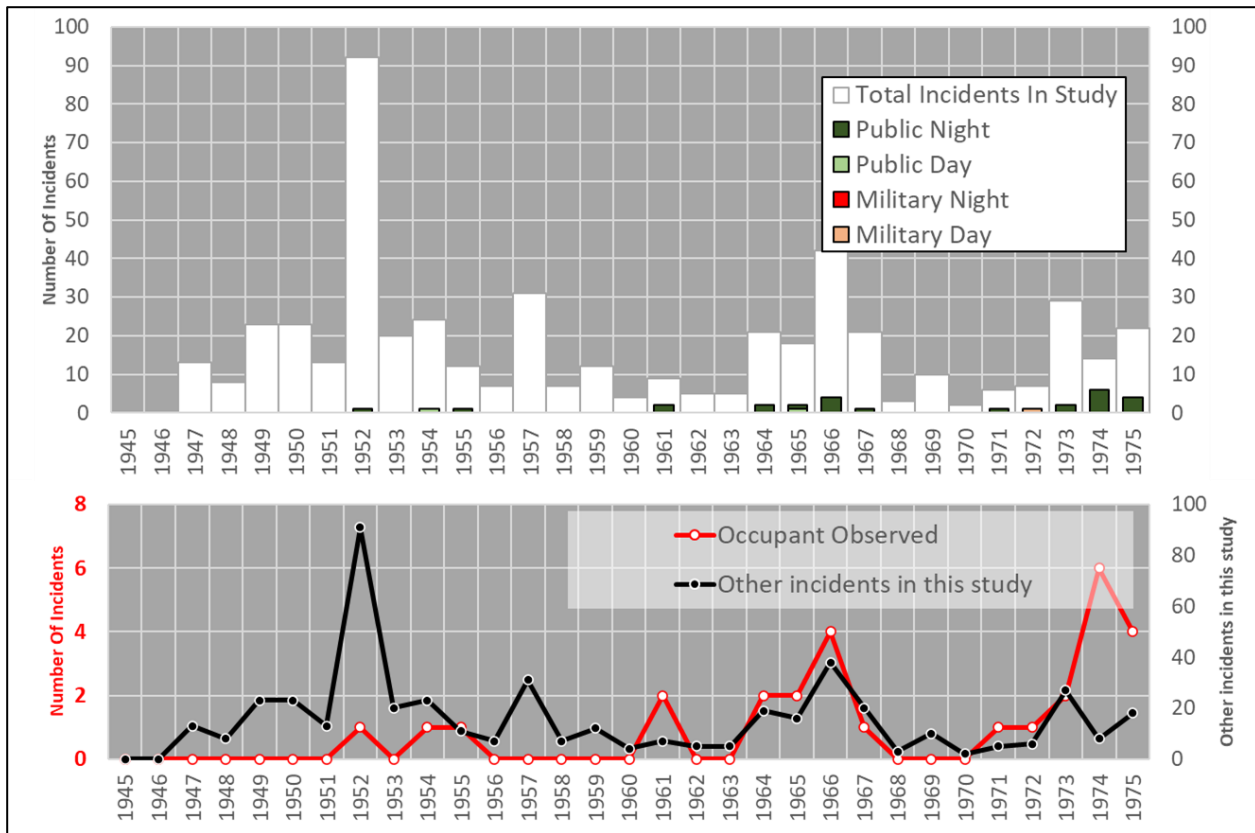


Figure 5-15. Total number of incidents involving occupant observed (broken down into both military/public and daytime/nighttime) compared to the total incidents in the study (1945-1975).

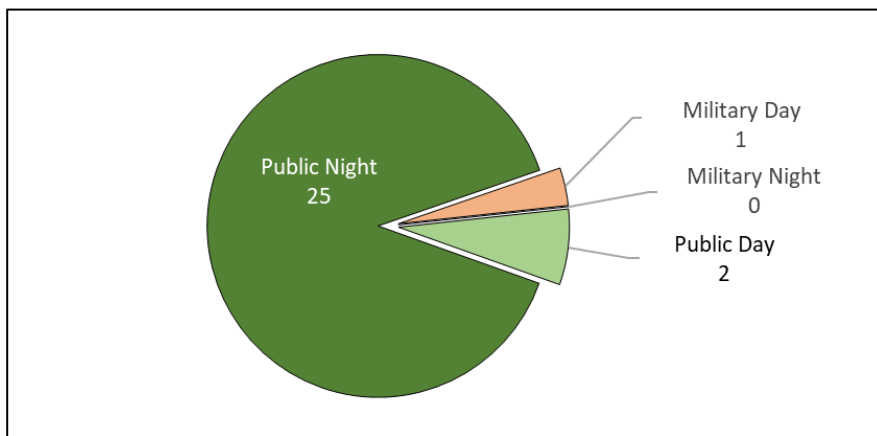


Figure 5-16 Total number of incidents during the study period (1945-1975) classified as occupant observed (28) and the distribution between Military/Public and Day/Night

Examples:

Aug. 25, 1952. Frontenac-Pittsburg, Kansas. 5:35 a.m. (CST). Radio station musician William Squyres saw a 70-75 ft inverted platter-shaped dull aluminum color object to right side of road about 40° elevation and 750 ft away. The midsection of the object had many windows in which the head and shoulders of a “man” and motion could be seen. The object itself had rotating propellers and after half a minute rose vertically at high speed and disappeared in a gap of broken clouds. Later found a 60 ft circle of grass matted down in the field. (Sparks 795)

April 24, 1964. 1 mile SSW of Socorro, New Mexico, 5:45-5:50 p.m., Socorro Police Dept. patrol officer Lonnie Zamora, while chasing a speeder heading S, heard a roaring sound and saw a bluish-orange funnel of flame in the sky to the SW slowly descending possibly 1/2 to 1 mile away, bottom of flame hidden behind a hill. He tried to pursue the flame, turning off to the right on a rough gravel road to the SW, lost sight of flame while trying to get car up steep rough hill. At the top after 10-15 secs of continuing along gravel road he suddenly noticed a shiny whitish-aluminum color oval object about 12-15 ft tall on the ground and about 800 ft away. For about these 2 secs also saw 2 small-adult-like figures in white coveralls near object, one turning toward him seemingly startled and jumping. He lost sight of object as he drove about 1,000 ft further and stopped. At that point he heard a very loud roar increasing in volume and saw a smokeless blue-orange flame coming from beneath the object which slowly rose and then flew away. (Sparks 1560)

March 23, 1966. 8 mi S of Temple, Okla. 5:05 a.m. Sheppard AFB civilian instructor and pilot, former newspaper publisher, William Eddie Laxson was driving to work and found the road blocked by a wingless aircraft, perch fish-shaped, landed in the road, about 75 ft [60-70 ft] long, nearly 8 ft high on 3 ft tall landing gear, 12 ft wide (thick), with a plexiglass bubble on top. The object had a 2 ft diameter porthole and a 4 ft tall door, with bright lights forward and aft. Laxson stopped his car about 240 ft away and walked toward the object to 160 ft [80 ft] away, noticing a labeling on its side like "TLA138" or "TLA738". He then saw a "man" wearing a baseball cap or mechanic's hat in AF-like green military fatigues uniform inspecting the underside with a flashlight who then climbed steps or ladder on the object and soon after it lifted off vertically with a hissing or drilling sound to a height of 50 ft and headed away. (Sparks 1657)

Jan. 5 [25?], 1967. Winsted, Minnesota, 4:30 am, a.m. Civilian man [Lenz?], 32, driving to work stopped to check his 1964 Chevy truck when its engine stalled. He then saw an intense light to his right, coming closer, then landing on the road, so he locked himself inside the truck. The object was 75 ft in diameter and 30 ft tall. It settled on tripod landing gear and an elevator-like device came down, with a man of medium height, dressed in blue coveralls with "a glass fishbowl on his head," of medium height, seemed to check something and then he and the object left. (Sparks 1710)

Sept. 3, 1975; Manassas, VA Night. When Miss Melinda Chow got off her homebound bus she saw an orange disc glowing above some nearby treetops & descending. Although alarmed, "for some reason" she ran toward it instead of away. She came out in a clearing to see the UFO resting on stilts 200 ft away. Near it was walking a humanoid being about 5 ft tall, with long narrow legs, very short arms, & "a face that occupied about half the height of his body." His skin was gray & leathery, and he walked "in a bouncing, hopping motion." Terrified, Miss Chow ran to her home. (NICAP Chronology)

5.9. Occupant Encounter

Observer reported an occupant in proximity to a UAP and described some form of interaction, communication or messaging associated with the encounter. With this study we only dealt with direct physical encounters reported by the observer.

A UAP occupant encounter involving a perceived signal or message is suggestive of an attempt at communication. A physical encounter may represent an advancement of information collection. For the purposes of this study, anomalous encounters such as reported abductions from bedrooms or other locations not directly associated with a technological vehicle were not included.

Our study found no reports with either symbolic or written communications associated with reports of UAP occupant encounters. We did find a small number of reports of verbal or telepathic communications, as well as physical contact in the form of examinations, occurring during “abductions;” however, the only pattern discernible in those reports was that the communication and physical contact only became known to the individuals reporting them following hypnotic regression well after the event itself. No comments on occupant communication were contained in the initial reports of the incident.

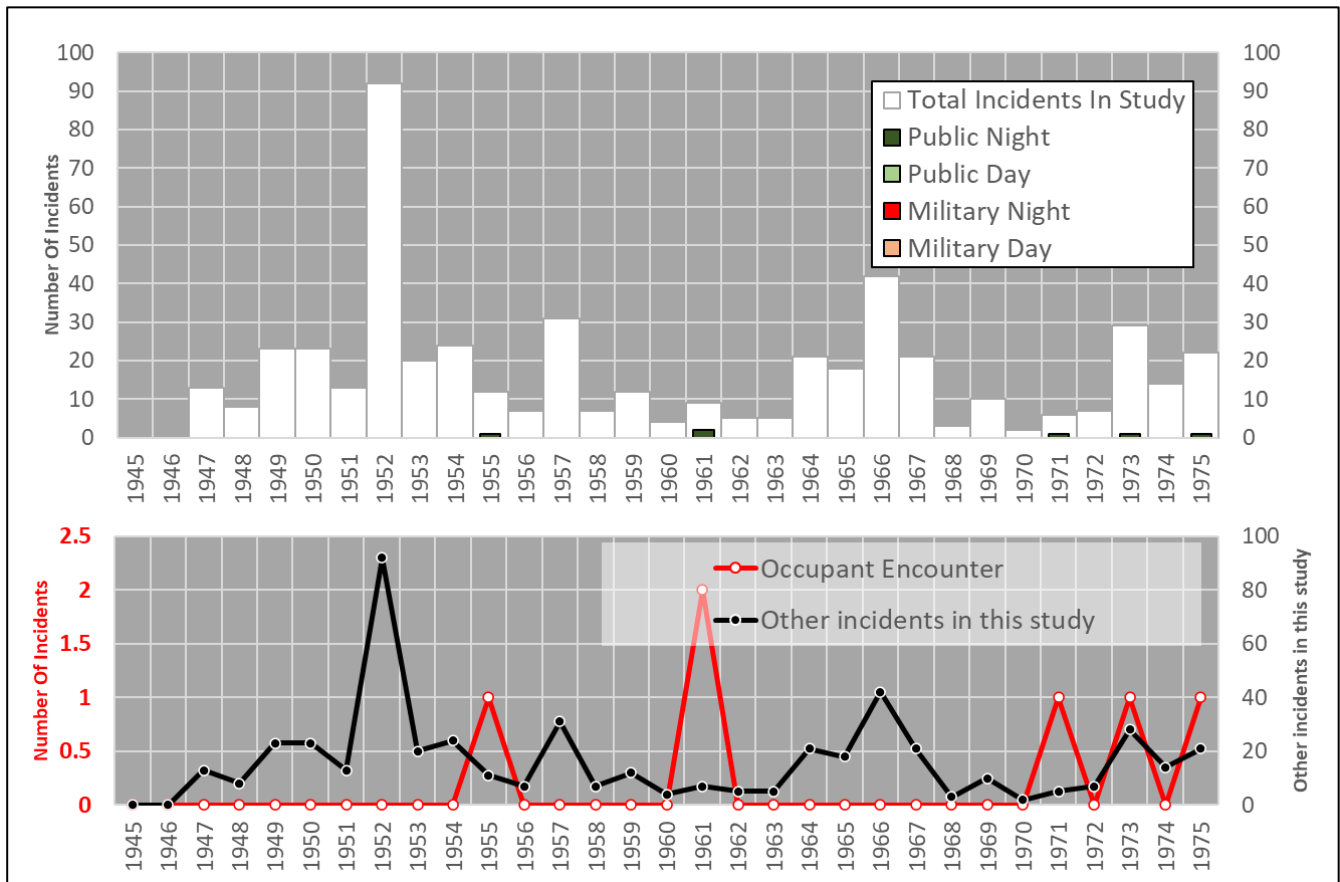


Figure 5-17. Total number of incidents involving an occupant encounter (broken down into both military/public and daytime/nighttime) compared to the total incidents in the study (1945-1975).

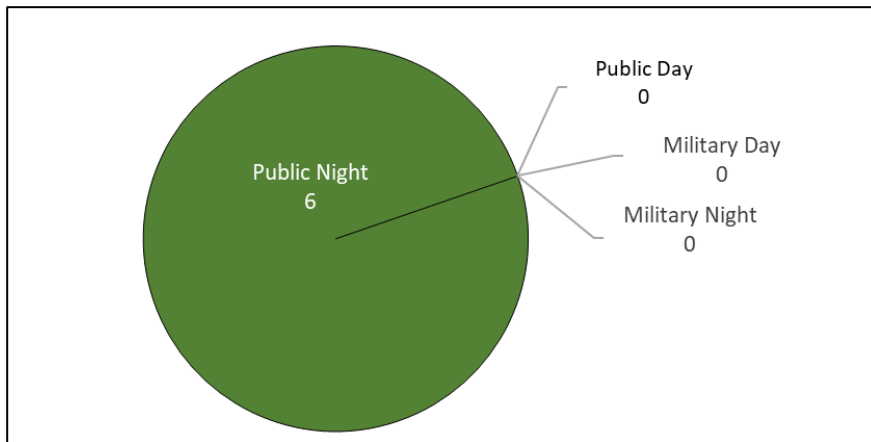


Figure 5-18. Total number of incidents during the study period (1945-1975) classified as occupant encounter (6) and the distribution between Military/Public and Day/Night

Examples:

August 21-22, 1955. Kelly 7 miles N of Hopkinsville, Kentucky (at 36.97° N 87.477° W). 7 8-11 p.m. 2:30-4:45 a.m. At about 7 p.m. Billy Ray Taylor went into the backyard of the Sutton farmhouse and saw a bright object from the SW [or actually about SSW about 210° azimuth from the direction of Fort Campbell U.S. Army base] then pass over and descend into a gully about 500 [300-600?] ft N of the farmhouse and about 35-40 ft lower elevation. Mrs. Glennie Lankford and 6 other adults [most Sutton family] plus 3 children (Charlton Lonnie and Mary Lankford) saw two or more 3 ft tall gremlin-like creatures float down from trees and approach the house from the dark which were shot at by rifle and shotgun fire without effect. At about 11 p.m. the entire group fled in terror in their two cars and drove at high speed into Hopkinsville to report the incident to the Police Dept. State police officer leaving the Shady Oaks restaurant 3 miles N of Hopkinsville in a car to respond to the call heard several meteor-like objects streaking over him sounding like artillery shells and was able to see 2 in a series looking like meteors from the SW [or actually about S from about 190° azimuth headed towards Kelly from the direction of Fort Campbell and the TOP SECRET Armed Forces Special Weapons Project Site C Clarksville Base 36.665° N 87.487° W National Stockpile Site for nuclear weapons storage apparently recently including multi-megaton yield H-bombs]. City county state and military police and reporters drove out to the Sutton farm to investigate from around 11:30 p.m. to 2 a.m. UFO entities returned at about 2:30 a.m. and were again shot at without effect finally disappearing at about 4:45 a.m. (Sparks 1145)

April 18, 1961. Eagle River, Wisc. 11 a.m. Joe Simonton heard a whining sound and saw an object, 30 ft in diameter, 12 ft high, with exhaust pipes around the periphery, land near his house. A door opened and a man appeared, about 5 ft tall, wearing a black, turtle-neck pullover with a white band at the belt, and black trousers with a vertical white band along the side. Two other figures were visible inside. Simonton filled a jug with water, returned it to the man, who gave him three ordinary pancakes, and the object took off. (Sparks 1478)

September 19-20, 1961. Indian Head, New Hampshire. 11p.m.-2 a.m. (EDT). Barney and Betty Hill saw a lenticular object with a double row of portholes and half-a-dozen dark figures working at control panels inside, when they stopped to investigate a light following their car. The object along with "entities" on board was observed both with binoculars and at close range by both Barney and Betty. They became afraid and drove away but later heard a "beeping" sound and lost consciousness for an estimated one hour. Betty reported the incident to Pease Air Force Base which confirmed that they had

indeed tracked (radar only) an unknown object around that time and in the general location of the report. (Sparks 1496)

Nov. 5, 1975; Snowflake (Heber), AZ Travis Walton abduction case. One of the more persistently controversial UFO events in history took place in northeastern Arizona. A work team consisting of seven individuals reported encountering a reflective, luminous object the shape of a flattened disc hovering close to their truck on a remote dirt road in the Apache-Sitgreaves National Forest. According to the crew, one of their members, Travis Walton, exited the truck and approached the object on foot, at which time he was allegedly struck by a brilliant bluish light or flash and hurled to the ground some distance away. In fear, the other crew members fled the scene, returning after a short period of time to find no trace of the UFO, or of Walton. The driver of the truck was Mike Rogers, the crew foreman and a personal friend of Walton's. While fleeing the scene, Rogers reported looking back and seeing a luminous object lift out of the forest and speed rapidly toward the horizon. He, along with the other five witnesses, would eventually be subjected to polygraph (lie detection) examinations regarding the event, the successful outcomes of which catapulted the case into the national spotlight. Walton turned up five days later, confused and distraught but with fleeting memories of alien and exotic human entities. He was also subsequently subjected to a number of controversial polygraph examinations (NICAP Chronology)

6. Overall Pattern Summary

From the overall analysis (Figure 6-1), we see a transition in UAP activities over time from 1945 to 1975, these trends relate to the activity types for 505 incidents that were being examined in the study.

- **Day versus Night**
 - Transition from mixture of daytime and nighttime to nighttime
 - Greater number of daytime incidents from mid to late 1940s, decreasing after 1952 to predominantly nighttime incidents by 1975.
 - Interactive and radical flight follow this trend towards nighttime incidents with over 70% daytime to less than 30% in the 1960s.
 - Against this trend, military facility intrusions occurred at night throughout the study period.
- **Military versus Public**
 - Balanced Military/Public split transitioning to predominantly public incidents by the mid-1960s.
 - The Military/Public split is complicated due to the incidents involving military intrusions and interference with weapons systems. There is a pattern of incidents at military atomic facilities which occur over the study period within three distinct periods (late 40s, mid-60s, 1975).
- **Military intrusions and interference with weapons systems**
 - Intrusions and interference related to the military development of atomic weapons in the mid to late 1940s, the deployment of the Minuteman ICBM in 1966-1967 and MIRV class ICBMs in 1975. These intrusions routinely occurred only at night.
 - Incidents at the different military facility types occurred in clusters of activity in time.
 - The 1967 incidents at Malmstrom (Montana), Minot (North Dakota) and the ICBM site Offutt, west of Omaha (Nebraska), occurred within a 4-week window.
 - In 1975 the military incidents and half of the public incidents were centered around a 21-day window from October 18 to November 8. There were 25 military incidents between October 30 - November 9 at the ICBM sites at

Malmstrom (Montana) and Minot (North Dakota), Wurtsmith AFB (Michigan) and at the Loring Air Force Base (Maine). There were also six public encounters between October 18 and November 11, four around the Malmstrom area and one in Idaho.

- The focus of UAP for both the military and public domains during 1975 was mostly in areas associated with the atomic warfare complex.
- The data for military sites, included for all phases of this study, indicate clusters of specified intelligent activity at multiple geographic locations within a specified time period. While the reason cannot conclusively be determined, the apparent correlation of military facility types with the development of the atomic warfare complex indicates a focus on atomic warfare capability.
- **Incident type** - Within the study period, there is a transition from interactive flight and radical flight to close approaches and occupant encounters, combined with the trend from a high number of day-time incidents to predominantly nighttime.
 - 1940-1950s - Interactive/radical flight. High levels in the 1940/1950s to very low numbers of incidents in the 1970s.
 - 1950-1960s - Loitering was more prominent during the early to middle period of the study, from 1949 to 1959.
 - 1957 and 1964 - Electronic transmissions, while small in numbers, a cluster of incidents occurred in 1957 and in November 1964.
 - 1950s-1970s – Close approaches increased from very low levels in the 1950s to very high numbers of incidents in the 1970s. Occupant encounters showed bursts in certain years, but the overall numbers were extremely low and showed no overall pattern or trend during the study period.
 - Overt displays of interactive flight and radical flight can be suggestive of messaging that might indicate, “We are here, we have advanced capabilities, we can defend ourselves.” Reports suggestive of messaging decreased over the period of the study.

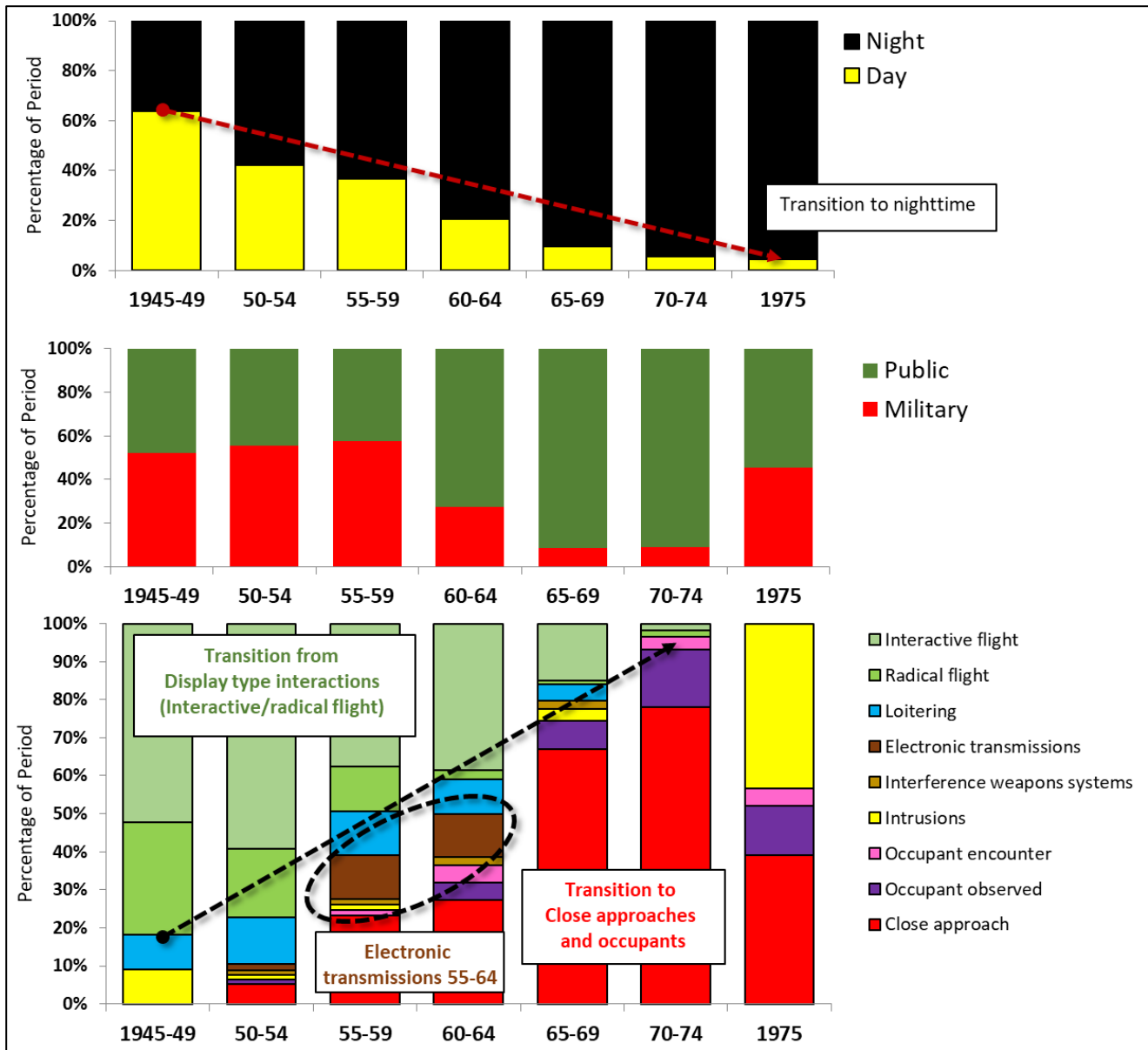


Figure 6-1. High-level patterns, shown from Figure 3-2, Figure 3-5 and Figure 4-3.

7. Conclusions

The pattern analysis for UAP incidents in the military and public domains indicated a shift from high visibility daylight reports at a distance, to nighttime close approaches to the observers. The focus of UAP activity shifted from the military to the public domain, including increases in close approaches, occupant observed and occupant encounters.

For the interval 1945-1975, we find an early period with frequent daylight observations of multiple UAPs (often observed to be disc-shaped) in controlled, interactive flight, along with radical maneuvers such as instantaneous acceleration vertically from a hovering position, radar-tracked speeds exceeding 9,000 miles per hour, and 90 degree turns without changes in speed.

Several reports documented military aircraft engaged UAP and transmitted IFF signals to attempt communications, and UAP responded with coded elements of IFF responses. Despite coded electronic transmission by UAP, no confirmed communications were reported.

UAPs loitering for extended periods in the immediate vicinity of the observers were found to have been observed primarily at night rather than in daylight. In comparison, military loitering incidents were reported more frequently in the period from 1949-1959, while the public reporting loitering incidents became much more frequent during a short period from 1966-1967. Visible activities such as radical speeds, acceleration, and the maneuvering of multiple UAPs during interactive flight were more often noted in military reports. Reports of multiple objects in groups (primarily in daytime) peaked in 1952 and trended downwards in subsequent years.

Notable UAP loitering, military intrusions and weapons facility interference were documented in a series of incidents in 1967 (Malmstrom AFB) and 1975 (Loring AFB and Malstrom AFB), where at least one flight of 10 Intercontinental Ballistic Missiles (ICBMs) was officially recorded as having unexplainably gone off alert status. Military incursions during the study period were predominantly at night; however, what remained of continuing activity in the military domain indicated focused interest on strategic atomic weapons deployments.

In 1957, close approaches to observers began to increase noticeably, trending upwards from 1961 to a peak in 1966, followed by another wave between 1969 and 1975. During the period of 1963-1968, there is a notable increase in UAP reports from the public domain corresponding with an increase in nighttime reports, and primarily associated with close approach events. Prior to 1951, there was an even split in UAP reports between military and public observations. From 1952 onward, the trend was consistently towards nighttime reports, and by 1960, nighttime reports predominated.

In 1961, UAP occupant observed, and occupant encounters also increased through the last half of the study. There was a small number of reports involving verbal or telepathic communications, as well as physical contact in the form of examinations, occurring during “abductions;” however, the only pattern discernible in those reports was that the communication and physical contact only became known to the individuals reporting them following hypnotic regression, well after the event itself.

Of the nine UAP activities evaluated, there were five categories of activity that presented too few incidents to identify any long-term patterns or trends: electronic transmissions, intrusions at military facilities, interference with weapons systems, occupant observed and occupant encounter. Each category did reveal certain time delimited bursts of anomalous activity; however further study is needed to determine whether patterns and trends emerged beyond the study period.

Several UAP activities indicated diverse interactions and the possibility of messaging; however limited data to establish patterns and trends require further study.

Credit Author Statement

L. J. Hancock: Conceptualization, Methodology, Investigation, Data Curation, Writing - Original Draft, Writing - Review & Editing, Supervision. **I. M. Porritt:** Conceptualization, Methodology, Formal analysis, Writing - Original Draft, Writing - Review & Editing, Visualization. **S. Grosvenor:** Conceptualization, Methodology, Investigation, Data Curation, Writing - Original Draft, Writing - Review & Editing., **L. Cates:** Conceptualization, Methodology, Investigation, Data Curation, Writing - Original Draft, Writing - Review & Editing

Data Repository

The 1163 incidents used in all three studies, including the 505 incidents on which this study is based are available at <https://doi.org/10.5281/zenodo.8213330>.

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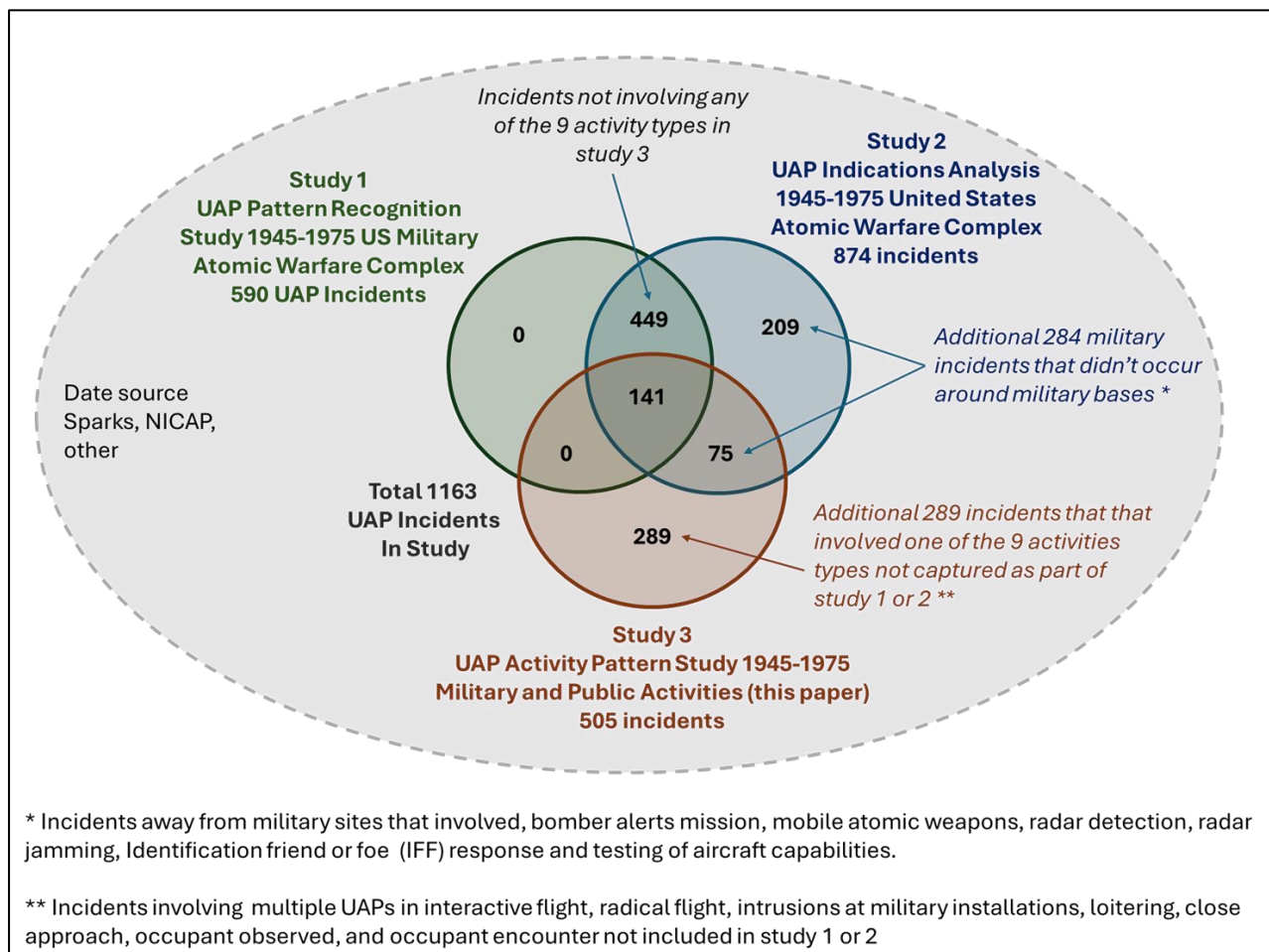
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Appendix 1 – Related Studies

The SCU Intentions study team addressed a series of questions related to UAP activities and intentions during the period of 1945-1975. The first two studies involve an examination of activity patterns within the military domain (study 1, [Hancock, et al, 2023a](#)), and a related examination of military intentions scenarios (study 2, [Hancock, et al, 2023b](#)) developed from those patterns.

A second set of two studies, of which this paper is the first, examines and compares activity patterns within the military and public domains (study 3). A subsequent paper will evaluate those patterns in association to a set of intentions scenarios for the military and public domains (study 4). All four studies cover the same study period 1945-1975 and use reports from a common data source (section 2.1). Reports for each study are selected based on the specific focus of that study.

Study 1 included reports related to specific military facilities as well as related control sites, study 2 included additional military reports to provide a wider military context and study 3 includes reports on specific UAP activity, including in the public domain. Details on the specifics of military site selection are included in studies 1 and 2. Overall 1,163 incidents are used in the initial three studies (Appendix -1). Inclusion of the reports for each study was based on the question being addressed in each individual study.



Appendix -1 Total number of incidents used in all three studies and how the number of incidents overlap between the three studies.