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## PROJECT 10073 RECORD CARD

3.	DATE   2. LOCATION   12-20 AMENIST, 1960   14-21 MILE Area   12-20 AMENIST, 1960   4. TYPE OF OBSERVATION   15-20 Ground-Visual   15				Was Balloon Probably Balloon Possibly Balloon Was Aircraft Probably Aircraft Possibly Aircraft Was Astronomical	
	O Yes	Civilian		0	Probably Astronomical Possibly Astronomical	
7.	LENGTH OF OBSERVATION	8. NUMBER OF OBJECTS	9. COURSE	000	Insufficient Data for Evaluation Unknown	
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ATIC FORM 329 (REV 26 SEP 52)

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Original Report

SUBJECT (Descriptive title. Use individual reports for separate subjects)

U.F.O.

SUMMARY (Give summary which highlights the salient factors of narrative report. Begin narrative text on AF Form 112a unless report can be fully stated on AF Form 112. List inclosures, including number of copies)

Two California highway Patrolmen, to and and were in their patrol cars 18 miles south of Red Blurf, California, when they spotted a football-shaped object the size of an airliner one and one-half miles away, 200 feet above the ground. It seemed to have a row of harizontal lights and something on the end that made a red beam that seemed to sweep the ground. The sightings be-Jan at 2545 PST, 13 August 1960.

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## SUPPLEMENT TO AF FORM 112 ORIGINATING AGENCY Provost derenal Olvision Lociellen APB, California

- 1. On 18 August 1960 the Provost Marshal, McClellan AFB, California, received TWX AFCIN-4E2X 8-2458-E, dated 17 August 1960. At 1455 hours, 18 August 1960, the undersigned amplaned for Red Bluff, California, and upon arrival reported to Major Malden J. LeRoy, Commanding Officer, S59th Radron, Red Bluff AFS, California.
- 2. The investigation of the incident was being conducted by 1/Lt David d. Snyder, A0-3017204, of that station. Lt. Snyder had taken a written statement from California highway Patrolmen and that a tatement (2 copies) a sketch and a newspaper article by and concerning these Patrolmen is attached as Exhibit"A.
- 3. In addition, Lt Snyder had extracted all information associated with the incident which had been recorded in the Red Bluff Air Force Station Operational Log. Those extracts are attached as Exhibit B!
- 4. Exhibit "C" is additional information of a general nature which Lt Snyder had secured.
- 5. At 1830 hours, 18 August, the undersigned interviewed Patrolmen and that and was able to develop the additional information attached as Exhibit "D."
- 5. Local inquiry succeeded in locating various residents who had witnessed the appearance of UFO previous to on on the same date the Highway Patrol Officers had reported seeing the one in question. Attached to this report are statements and sketcher by
- and "I." Redelved on 23 Abjust via mail was additional statement by additional persons which is included below by as a ribit "I-2."
- 7. The undersigned interviewed each of the above persons and based on a personal opinion formed through observation of oredibility, responsibility and reputation, concluded that an unidentified obsidet ani/or objects of similar physical appearance, whether real or imaginary, were observed by various solid ditisons of Tehama lounty Jailfornia.
- 8. Based upon allegations by the citizenry that UtOs had been appearing nightly in the area north and east of hed dluff, Galif-orniz, the undersigned established a vigil in the Inskip Look-Out lower on the night of Friday, 19 August 1960, between the hours of 1830-0800. No objects were observed.
- 9. At 2000 hours, Saturday, 21 August 1960, the undersigned was at the Sheriff's Office in Red Shuff, at which time an bro was reported by Criminal Investigator be ded Shuff, California. The undersigned wont immediately to the address and was shown a very distant round object having a reddish nue. The horizon was extremely smoky due to forest fires in the area. The object was observed for 30 minutes until hidden by smoke; At 0200 hours the same date contact was visually re-established and the object was identified as a star.
- 10. Callfornia Division of Forestry Maps of Tellana County were obtained and recordings of sightings indicated thereon. See Exhibits "J", "k" and "L."

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CLASSIFICATION

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## SUPPLEMENT TO AF FORM 112 ORIGINATING AGENCY REPORT NO. Provost anrelia? Division PAGE 2 OF 2 PAGES Medlellan AFB, California

- 11. An additional report of signtings of uFO was furnished by the California Highway Patrol Commissioners Office. Attached as Exhibit "M."
- 12. Forwarded with this report is a tape recording of the conversation given by the two California Highway Patrolmen to the adlf hadio Reporter in Red Bluff, Jalifornia, on the morning following the sighting of the UFO 13 August 1960.

Investigations and Inspection Section

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## 21 - 31 AUGUST 1960 SIGHTINGS

DATE	LOCATION	OBSERVER	EVALUATION
21 22 23 23 4 4 5 5 5 5 5 5 5 5 6 6 6 6 6 6 7 8 2 9 9 9 9 9 9 3 1 3 1	Hachijo-Jima Island Dyrenville, Texas NNW Lebreville, Africa Miamisburg, Ohio Wichita, Kansas Sitka, Alaska McComb, Ohio Uniontown, Ohio Western Mediterranean Sioux Narrows, Ontario, Canada N of Midway Island Andover, Massachusetts Springville, New York Elkhart Lake, Wisconsin Shawano, Wisconsin Stoughton, Massachusetts Centerville, Ohio Zaragoza AB, Spain Vicinity Taiwan Crete, Illinois Pontiac, Michigan Dedham, Massachusetts Blackwood, New Jersey West Roxbury, Massachusetts South Tewksbury, Massachusetts Indianapolis, Indiana Yokohama, Japan	USN Military Air Northwest Airlines  USN Military Air  Anonymous Military USN  Unknown, Multi	Satellite (ECHO I) Insufficient Data Astro (METEOR) Astro (METEOR) UNIDENTIFIED Astro (METEOR) Astro (METEOR) Aircraft Insufficient Data Insufficient Data Satellite (ECHO I) Aircraft Aircraft Aircraft Aircraft Aircraft Aircraft Aircraft Aircraft Insufficient Data Astro (METEOR) Insufficient Data
31 31	Wilmington, North Carolina Chicago, Illinois		Insufficient Data Astro (CAPELLA)
31	Glenview, Illinois	Unidentified	Insufficient Data
31-6	David City, Nebraska	Multiple,	Astro (REFRACTION OBJ
	ADDITIONAL REPORTED	SIGHTINGS (NOT CASES)	
DATE	LOCATION	SOURCE	EVALUATION
21 23 25 31	Rogersville, Pennsylvania Eglin AFB, Florida Holmstad, Sweden Du Quain, Illinois	Newsclipping Newsclipping Newsclipping (Ltr)	

AFC IN-LE2x

23 NOV 1960

Congressional Request for Summary of UFO Sighting (Mr Robert Smart, House Armed Services Committee)

SAFUL-3d (L/Col Tacker)

- 1. The summaries contained in this correspondence are of the UFO sightings which occurred in the Red Bluff, California area between 12-20 August 1960. These summaries and the associated ATIC analysis are forwarded per telephone requests by L/Col Tacker, SAFOI-3d and L/Col J. Boland, SAFLL on 16 November 1960. Information concerning these sightings was requested from SAFLL by Mr Robert Smart, House Armed Services Committee.
- 2. On 13 August 1960 at 2345 hours PST, two California highway patrolmen, observed an unidentified flying object while patroling 15 miles south of Red Bluff, California. The two officers stated that the object suddenly appeared directly in front of their patrol car and their first impression was that it was an aircraft about to crash. The officers leaped from their car in order to be in a better position to act after the expected crash. When outside of their car both officers were immediately struck by the absence of sound, but assumed the aircraft was without power. As the object approached within 200-300 feet of the ground it suddenly reversed itself, and at high speed gained approximately 500 feet of altitude, where it came to a complete stop. The officers described the object as surrounded by a glow, and at each end of the round or elliptical object there were red lights. At times there were approximately five white lights visible between the red lights. Officer Scott's impression was that the object was sweeping the area with red light beams and estimated that six or seven sweeps were made. He further stated that it appeared to take positive action to avoid mis shining the red light of the patrol vehicle upon it. Both officers described the motion as abrupt, but generally toward the east and reported that they followed in their vehicle. As they followed and watched the object, it was approached by a similar object. Finally loth objects disappeared below the eastern horizon. Upon return to the Tehama County Sheriff's Office, it was determined that two deputies and the night jailer had also experienced seeing the object and their impressions were the same as the two patrolmen.
- 3. On 17 August 1960, at 1930 hours PST, Mr.

  Red Bluff, California was driving up Belle Hill Road with his wife and son toward what is commonly called Hog Back Road. Mr.

  reported that he and his family sighted a bright metal-like object at approximately tree top level which was flying in a northerly direction. Mr.

  Stated that the object was approximately three to

four miles away and the first impression was that it was a large helicopter. When Mr and his family reached the spot where they thought the object to be, they sighted it approximately one-half mile away and approximately 100 feet below them. The object appeared to immediately pick up speed, rising out of the canyon and passing over the road in front of the family. It dropped from sight for a few moments and was then seen traveling up a branch canyon. The object was described as completely round and approximately 35 to 50 feet in diameter. When it rose from the canyon and passed over the road it appeared to have a light near the nose. The light had a reddish purple hue. The object was reported to have a second light which was located on the back. The second light appeared as a narrow bluish band. The object was estimated to have a speed of 25-30 miles per hour.

- Dept of Correction, Mrs ForestLook-Out, and Miss Sighted an unidentified flying object from the forestry look-out at Inskip Mountain. The object was described as a dull red light above the horizon. The object was reported to have faded and reappeared several times in gradual cycles. The object was reported to be generally stationary. At approximately 2130 hours another object was sighted which was similar to the first; however, it appeared to be moving from right to left at a constant elevation.
- 5. As evidenced by Exhibits I and H of attachment #1 to this document, there were many sightings of UFO's in the California area between 12-20 August 1960. These exhibits also confirm the fact that the circumstances surrounding these sightings were generally the same.
- 5. This case was brought to the attention of ATIC on 16 August 1960 by a telephone call from L/Col L. Tacker, SAFUI-3d. On this date a 1WX (Atch #2) was sent to McClelland AFB, California requesting a full and detailed investigation in accordance with the provisions of AFR 200-2, dated 14 September 1959.
- 7. On 16 August 1960, ATIC made telephone contact with the 359th Radar Squadron (SAGE) (AMC), Red Bluff Air Station, Red Bluff, California. The 859th is tied in with the Portland Air Defense Sector, Adair Air Force Base. Major LeRoy of the Radar Station reported that nothing had appeared on their scopes which called for a scramble between 12-16 August 1960. Contact was again established with the 859th on 17 November 1960, and at this time Major LeRoy denied having informed patrolmen | that an unidentified object was on the and scope of his unit on the night of the sighting. The Radar Unit at Red Bluff is a SAGE station. The equipment at Red Bluff is only monitored at that station and is tied in to the Portland Air Defense Sector, which has the identification and intercept responsibility. Major LeRoy informed the California Highway Patrol that his station had no capability for identification, but that in view of the fact that no scramble had occurred, no unidentified object was on the scope.

The major stated that the officers were not convinced that his information was all true.

- 8. For further support of the data collected during the investigation of this case ATIC obtained from the Air Weather Service (MATS) at Asheville, North Carolina the WBAN Forms 31 (Adiabatic Charts) for the Red Bluff, California area covering the period 3-24 August 1960. The weather stations at Red Bluff, Chico, and Redding, California are second order stations. These second order stations observe on a limited schedule, generally daylight hours, and do no complete adiabatic charts. The most representative records available for determing the vertical temperature gradient for Red Bluff are the Adiabatic Charts from Oakland, California and Medford, Oregon. Red Bluff is located almost exactly half way between these two cities, 165 miles from Oakland and 155 miles from Medford. Since the general weather for Oakland, Red Bluff, and Medford was the same, it is safe to assume that interpolation will give a representative picture of the vertical temperature gradient at Red Bluff. The Adiabatic Charts indicate that a strong temperature inversion was prevalent in the entire northern Callfornia area during the period of the sightings.
- 9. The conclusion of ATIC is that the sightings which occurred in the Red Bluff area were due to atmospheric refraction. It is an impossible task to determine what the exact light source was for each specific incident, but the planet Mars was the most probable culprit in the instance of the highway patrolmen. The planet at the time of the sighting was just below the horizon and probably hove into view due to the refraction of its light by the atmosphere. A contributing factor to the sightings could have been the layer of snoke which hung over the area in a thin stratiform layer. This smoke came from the forest fires in the area and hung in a layer due to the stable conditions associated with the inversion.
- 10. The usual occurrence in nature is for the temperature of the atmosphere to decrease as altitude increases. This change in temperature with altitude is known as the "lapse rate." In some cases, however, instead of decreasing with altitude the temperature actually increases and the condition is termed an "inversion."
- ll. In passing from one medium to another of different densities or different densities of the same medium, waves of radiant energy are refracted or bent from their original straight line course, except when entering at 90° to the surface separating the two media. The bending is explained by the fact that the waves travel at different speeds in media of different densities. This, in effect, means that a person can in fact look around a corner, or a curve when there are an infinite number of layers of slightly different densities next to each other, as in the atmosphere. Due to the fact that light of different wave lengths (colors) bend at different angles, white light is separated into color bands (spectrum) ranging usually from red to violet. The longer wave lengths (red) being bent less than the short (blue). This secondary effect of refraction is called dispersion.

- 12. In addition to the usual results of atmospheric refraction, special optical effects known as mirages may occur when there are strong temperature contrasts in adjacent layers of air. Mirages fall into two general categories termed "inferior" and "superior." The most common mirage is the inferior type, occurring when the temperature profile is following the normal pattern of decreasing with altitude. However, for the condition to occur, a layer of extremely warm air must exist near the surface with relatively cooler and, therefore, denser air above it. Convection would normally occur under these conditions, but usually has not begun due to lack of turbulence and the slow transfer of heat due to conduction and radiation. These conditions cause the light which reaches the eye to be less curved than normally, and in some extreme conditions to actually be curved in the opposite direction. The effect of inferior mirages is to shorten the distance to ones apparent horizon (see Atch #3). In this type of mirage a distant object is sometimes seen inverted and below the real object. This is the type of mirage which is so familiar to persons on deserts. The water they see being an inverted image of the sky. An evoryday experience with a mirage of this type is the wet appearance of known to be dry highways. The wet spot remaining some distance ahead of the car. These mirages are called "inferior" because the image is below the real object. When the opposite temperature conditions occur, a cold layer of air with warmer air on top (inversion), the conditions produce a superior mirage. These mirages tend to increase the distance to our horizon and their effects are much more startling than inferior mirages. When these conditions occur a person can actually see objects which normally would be below his horizon. Sometimes the images will be highly magnified or extremely distorted. This mirage is called a superior mirage because the image occurs above the actual object. In this explanation reference has been made to layers of air, but it should be understood that the transition from one layer to the next is not abrupt. There is mixing and a gradual change in the refractive power of the air, and the effects seen in mirages are due to this continuous variation.
- 13. A number of the witnesses mentioned that the object they observed was moving at some approximate speed. The speeds most commonly mentioned were centered around about 35 miles per hour. It should be noted that these witnesses were riding in cars and that this is probably the speed at which they were driving. It is a common characteristic of mirages that the image remains a constant distance from the observer in order that the geometry associated with the phenomena remains fairly consistent. Mirages of water holes seen in the desert are constantly out of reach. It is probable that the witnesses' estimates of speed were reached by the fact that the object appeared to keep pace with their cars.
- 14. It is quite probable that reports of all of the sightings which occurred in California during the period 12-20 August 1960 did not reach ATIC. It is, therefore, impossible to make an accurate estimate as to how many sightings actually occurred and what percentage were

due to the inversion. It is possible that some were due to other causes such as "hysteria" and the "get into the act" attitude of some people. However, in view of all available evidence in this case, it is concluded that the effects associated with the inversion were responsible for the sightings which occurred in the Red Bluff, California area between 12-20 August 1960.

FOR THE COMMANDER:

Colonel, USAF 1/22/40
Deputy for Science and Components

3 Atch:

1. File of UFO Sightings

2. Cy TWK, 16 Aug 60 to McClellan AFB, Calif

3. Diagram of effects of mirages

COORDINATION:

xotet friend Major Date 18 november 60

TAB	
A	IR 112 dtd 23 Aug 60 w/14 Inclosures
В	Investigative Data
3	Weather Data
D	Taped Interview with Principal Witnesses on 16 Aug 60
E	Extracts from UFO Publications



JOINT MESSAGEFORM		UNCLASSIFIED						
SPACE BELOW RESERVED FOR COMMUNICATION CENTER								
			7	T.17	20372			
PRECEDENCE TYPE MSG (C	heck)	ACCOUNTING	ORIG. OR REFERS		CLASSIFICATION			
ACTION ROUTINE BOOK MULTI	BINGLE	AF	ORIG	1	OF REFERENCE			
INFO		l nr	ORIG					
FROM: ATIC, W-P AFB				SPECIAL	INSTRUCTIONS			
McCLELLAN AFB, CALIF								
/UNCLASSIFIED/FROM: AFGIN-4E2x /- 2/9 -C SAFOI, WASH, D.C., CALLED INTO ATIC THE FOLLOWING INFO CONCERNING AN UFO SIGHTING THAT HAS RECEIVED WIDESPREAD NEWS COVERAGE: "TWO CALIF HWY PATROLMEN, WERE IN THEIR PATROL CARS 18 MILES SOUTH OF RED BLUFF, CALIF WHEN THEY SPOTTED A FOOTBALL SHAPED OBJ THE SIZE OF AN AIRLINER 12 MILES AWAY, 200 FT ABOVE THE GROUND. IT SEEMED TO HAVE A ROW OF HORIZONTAL LIGHTS, AND SOMETHING ON THE END THAT MADE A RED BEAM THAT SEEMED TO SVEEP								
THE GROUND. THE SIGHTINGS BEGAN AT 2345								
DETAILED INVESTIGATION BE MADE IN ACCORDA	ANCE V	VITH AFR 200	-2, DTD					
14 SEPT 59.								
				16	1330			
	ç			MONTH	YEAR			
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TYPED NAME AND TITLE (Signature, if required)  Maj Robert J. Friend  PHONE 69216  EECURITY CLASSIFICATION  UNCLASSIFIED	RELEASER	PHILIP G. Colonel,	EVANS	Compia	nent s			

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