

J. A. Hynek analysis of K. Arnold (1947)
sighting -

Reviewed & approved - June 1956

5 June 1956

MEMORANDUM FOR: Office of the Scientific Advisor

SUBJECT: Final Report - Preview of Motion Picture
"Unidentified Flying Objects."

Director Aerospace Studies Inst ATTN: Archives Branch Maxwell AFB, Alabama	RETURN TO
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1. Reference is made to memorandum from this office dated 21 May 1956, which was in the nature of a preliminary report on the preview of subject UFO film shown privately on 16 May 1956. A copy of preliminary report is attached.

2. In view of the fact that the first report was hurriedly prepared in order to immediately provide the Directorate of Intelligence and PIO with some advance comments and analysis of the film, a second, more careful review of this film was subsequently made at a local theater. The exact sequence, dates and localities of the UFO sightings portrayed were recorded, providing this office with exact data upon which to make a better comparison with the facts and material in the UFO project files.

3. The following represent the general and specific comments of this office, as compared with those made on the preliminary report referenced in par. 1 above (in order of sightings shown):

a. General Comments: The general comments and opinions stated in the preliminary report, par. 2a. through 2d. are substantially correct.

b. Specific Comments and Conclusions of Each UFO Case, (in order shown):

- (1) Kenneth Arnold Case (Mt. Ranier, Wash.): This was the first UFO case in the U.S., and the one which, undoubtedly, triggered off the rest from that time on. It was not commented on in the preliminary report. The following is a technical analysis made of this case by Dr. Hynek on the basis of Mr. Arnold's own statements: Arnold made drawings of objects showing definite shape, and stated that objects seemed about 20 times as long as wide, estimating them as 45-50 feet long. He also estimated the distance as 20-25 miles and clocked them as going 47 miles in 102 seconds (1700 MPH). These statements are mutually contradictory: If the distance were correct, then in order for details to be seen, objects must have been of the order of 100 x 2000 feet in size. If, we adopt a reasonable size - Arnold's own estimate, in fact, of 50 feet long, hence about 3 feet wide, the objects must have been closer than a mile, obviously contrary to his statement. If we adopt a reasonable limiting size to the objects of 20 X 400 feet, objects must have been closer than six miles to have shown the detail indicated by Arnold. At this distance, angular speed observed corresponds to a maximum speed of 400 MPH. In all probability, therefore, objects were much closer than thought, and moving at definitely "sub-sonic" speeds. Note: Observational data taken from original Arnold files. There were no witnesses or other observers to this sighting.

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Kenneth Arnold Case: *Arnold made drawings of objects showing definite shape, and stated that objects seemed about 20 times as long as wide, estimating them as 45-50 feet long.

He also estimated the distance as 40-50 miles and clocked them as going 47 miles in 102 seconds. (1700 mph).

These statements are mutually contradictory:

If the distance were correct, then in order for details to be seen, objects must have been of the order of 100 X 2000 feet in size.

If, we adopt a reasonable size - Arnold's own estimate, in fact, of 50 feet long, hence about 3 feet wide, the objects must have been closer than a mile, obviously contrary to his statement.

If we adopt a reasonable limiting size to the objects of 20 x 400 feet, objects must have been closer than six miles to have shown the detail indicated by Arnold. At this distance, angular speed observed corresponds to a maximum speed of 450 mph.

In all probability, therefore, objects were much closer than thought, and moving at definitely "sub-sonic" speeds.

*Note: Observational data taken from original Arnold files. There were no witnesses or other observers to this sighting.

//s/ J. . . H.

J. Allen Hynek

Memo: Dr. Hynek & I worked at the observatory from 1230 to 0900 PM on these "old" (?) cases. With regard to Arnold all we have is his word, with his constant emphasis that he is a highly capable and reliable observer (presumably in the area of the UFO sighting). Therefore, using his own words, and data --- we came up with the above.

P.S. Received a call from Mr. Armer Capt. Gregory about 1430 as to the progress being made. Informed him our results would be ready next day.

Memo for CSA, subj: Final Report - Preview of Motion Picture
"Unidentified Flying Objects." (Cont)

7 JAN 48 (2) Mantell Case (Godman Field, Ky.): This office maintains the comments made on the preliminary report, par. 3c.

29 MAY 50 (3) Sperry Case (Wash. D.C.): This office does not have this case on file. UFO project files were reorganized and records disposition action was undoubtedly taken many times since 1947. It is also possible that this case was not formally or officially submitted to ATIC. Investigative or analytical action on UFO cases is not initiated merely by a report or mention of the sighting in a newspaper or magazine. The undersigned project officer has found a magazine article excerpt of the case; however, a detailed search of records did not disclose any material on this case.

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(4) Sioux City Case (Iowa): This was erroneously commented upon as resembling the "Chiles-Whitted" case (See par. 3e. of preliminary report). After a second review of the motion picture version, it has been determined that this UFO sighting made by two airline pilots, Vinther and Bachmeier, after their take-off from the Sioux City airport was on the night of 20 January 1951. The "Chiles-Whitted" and "Vinther-Bachmeier" cases resemble each other. Both airline pilot crews observed "a long, slender cigar shaped object." In the Sioux City sighting, the object was described as "one-half times the size of a B-29 fuselage, lights similar to running lights being blinked - and a bright light similar to a landing light visible for a short period..." Our comments on the bans of UFO records: The description appears to describe a B-36 as seen from another aircraft at night. It could have been a B-36, slightly off course, orbiting over the airport, making a visual check in the vicinity for training purposes, or other similar reasons. It was determined by ATIC that at that time (1951) SAC did not maintain records of their training flights within the ZI.

(5) Goddard Case (Atlanta, Georgia): Briefly mentioned in the UFO film. No record of this particular sighting (by name or locality) in our files. No date of sighting was given in the film.

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(6) Marianna Case (Great Falls, Mont.): The conclusions made in the preliminary report are substantially correct. The following is a final conclusion derived by Dr. Hynek and undersigned, and verbally transmitted to your office from Ohio State University on the evening of 29 May 1956, per your request: In 1950, after an ATIC interrogation of witnesses and evaluation of data, and our opinion at that time was that the UFO's apparently were two F-94 aircraft. In support of this contention, a few weeks ago an extremely