

DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS UNITED STATES AIR FORCE

WASHINGTON

CLASSIFICATION CANCELLED BY AUTHORITY OF THE INSPECTOR GENERAL USAF  
BY 8TH DISTRICT HISTORIAN  
MAXWELL AFB, TEXAS  
DATE 11 4 DEC 1975

24-109

SPOT INTELLIGENCE REPORT

SUBJECT: Unconventional Aircraft

TO: Director of Special Investigations  
Headquarters, U. S. Air Force  
Washington 25, D. C.

1. SYNOPSIS: Lt. Col. John R. Hood, Jr., AMC Field Engineering Officer, NEPA Division, Oak Ridge, Tennessee, along with personnel of the Oak Ridge National Laboratory and the AF Radar Operations Sections, McGhee-Tyson Airport, has undertaken a number of technical approaches to the problem of unidentified flying objects.

2. DETAILS: Preliminary investigation of the technical approaches to the problem of unidentified flying objects has been undertaken. This investigation is being instigated by Lt. Col. John R. Hood, Jr., AMC Field Engineering Officer, NEPA Division, Oak Ridge, Tennessee, along with personnel of the Oak Ridge National Laboratory and the AF Radar Operations Sections, McGhee-Tyson Airport.

Colonel Hood has outlined these approaches in a letter to Commanding General, Air Materiel Command, Wright-Patterson AFB, Ohio, Attn: Engineering Division MCPEXP, Subject: Reporting of Information on Unidentified Flying Objects, under date of 5 December 1950. The following is quoted from this report:

a. With the offered assistance of the Oak Ridge National Laboratory and NEPA, radioactive background counters are being located over as wide an area of the Restricted Area as practicable. These are approximately ten in number and include air samplers. Most of these counters have been in operation under the cognizance of the Health-Physics Division to maintain a constant air monitoring program. A map of these counter locations has been furnished to the Detachment at the Knoxville Airport, and radar sightings passing over or near these counter stations will be recorded and, when sufficient number have been recorded to establish a basis for evaluation, the radioactive counter records will be compared to the radar log to see if any change in the background occurs with the presence of sighted objects. In addition, portable counters carried in a radio-equipped patrol car may be directed by the radar station to a location on the area under the plotted sighting.

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b. Dr. K. Z. Morgan, Head of the Health-Physics Division of ORNL, will provide (in late December) a several thousand Curie source of active material for the purpose of checking the radar operations to determine if the ionized air above an open portion of the source can be detected by the radar station. The source will be moved on a truck to various locations in Oak Ridge and any other desirable points. The purpose of this is to determine if the radar set located at the Knoxville Airport can see concentrations of ionized air which might result from gases released from the stacks of the Oak Ridge National Laboratory, and also to provide some indication relative to the radar detection of the nuclear powered aircraft.

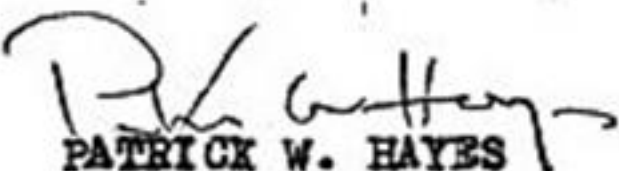
c. Dr. D. M. Davis of the Oak Ridge National Laboratory is making available airborne Geiger counter equipment which initially will be carried in the C-45 assigned to this activity and which can later be mounted, if desired, in the wing tank of the F-82 fighter. The aircraft carrying this equipment will be flown by the personnel of the Radar Operations Section and vectored to the sightings being plotted by the radar in an attempt to determine if the sightings are radioactive gas or caused by some other radioactive source. It is expected that this equipment will be operational in the C-45 within ten days.

d. Dr. Davis has suggested as the possibility of using a Geographical Survey C-47 equipped with airborne counters and air samplers and with a magnetometer, scheduled to be in the Oak Ridge area in the near future. It may be desirable and possible that this ship can be similarly vectored into the area of the sightings being plotted in order to detect any radioactivity and also in an attempt to detect any electro-magnetic field fluctuations with the magnetometer. The local Radar Section has agreed to place in operation as soon as possible a height-finder-type radar and has begun operating a B-scope to get a more accurate plot of the sighting. In addition, they plan to tie in an oscilloscope with the radar set to compare the wave shape and the reflected waves to attempt to determine wave shape characteristics as observed from aircraft, clouds, birds and other objects.

e. Some preliminary discussions have been held informally to consider the possibility of locating stationary magnetometers or similar devices to see if the fluctuations in the earth's electro-magnetic field occur with the radar sightings. It may be possible, if desired, to fabricate locally the sensitive portion of these magnetometers. In addition, suggestions have been made to consider employing directional or telescopic types of Geiger counters, spectographs, and other means for obtaining air samples.

f. The services of electronic experts and ex-MIT radar specialists located in the Oak Ridge Area are being offered to the Radar Operations Section to act as consultants or to offer technical advice to the Radar Department. Personnel concerned will be those who are or have been cleared for military work and, of course, have "Q" clearances.

3. ACTION: Future progress of the technical approaches and results will be forwarded for your information.



PATRICK W. HAYES  
Lt. Colonel, USAF  
District Commander