

<b>1. DATE - TIME GROUP</b> 1 February 65 02/0041Z	<b>2. LOCATION</b> Jacksonville, Florida
<b>3. SOURCE</b> Civilian (Tower Operator)	<b>10. CONCLUSION</b> ✓ SATELLITE
<b>4. NUMBER OF OBJECTS</b> One	Experienced Tower Operator. Thought to be Satellite. Not ECHO I or II. Case regarded as the observation of one of the other visible Satellites.
<b>5. LENGTH OF OBSERVATION</b> 60 <del>MIN</del> Seconds	<b>11. BRIEF SUMMARY AND ANALYSIS</b>  Object appearing as a light about the same as a star. White color. No shape or details noted. Observed in North disappearing in NE. Flight to south or southeast. Thought to be a Satellite by observer.
<b>6. TYPE OF OBSERVATION</b> Ground-Visual	
<b>7. COURSE</b> SE	
<b>8. PHOTOS</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>9. PHYSICAL EVIDENCE</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	



~~OFFICIAL FILE COPY~~ FEB FLORIDA

TDEW/UFO

UFO Sighting, 1 Feb 65, Jacksonville & Tallahassee, Fla 26 Feb 65

Federal Aviation Agency  
Jacksonville, Florida

1. On the night of 1 Feb 65 at 1900 hours, an unidentified flying object was reported over Jacksonville, Tallahassee and by various aircraft over Daytona and off the coast of Florida.
2. The object was reported as tracking West to East. The tower operator at Jacksonville was listed as one of the observers. Additional information on the observation is required for positive identification. Your assistance in having the operator who witnessed this event complete the attached form will be appreciated.

FOR THE COMMANDER

ERIC T de JONCKHEERE  
Colonel, USAF  
Deputy for Technology  
and Subsystems

1 Atch  
FTD Form 164

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FEDERAL AVIATION AGENCY

AIRPORT TRAFFIC CONTROL TOWER  
P. O. Box 18006  
Jacksonville, Florida 32229

March 5, 1965

Commander  
Foreign Technology Division  
Air Force Systems Command  
Wright-Patterson Air Force Base, Ohio

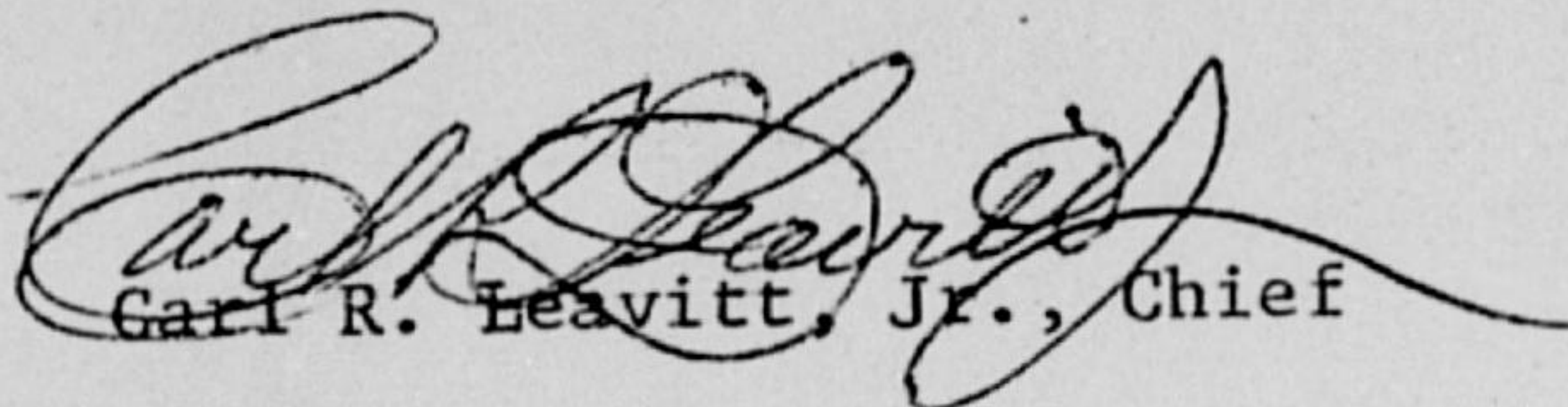
Attention: TDEW/UFO

Dear Sir:

As requested in your letter dated February 26, 1965, the questionnaire furnished has been completed by Air Traffic Control Specialist (Tower) GS-11 Norvell L. Cole. The completed questionnaire is enclosed.

If we may be of further service, please advise.

Sincerely yours,

  
Carl R. Leavitt, Jr., Chief

Enclosure



2321.6  
FEB 1, 02/0041Z

39  
01  
80 + ECHO II in Southern Hemisphere

ECHO I 0000

41 = 35°N

160.99

129.77

31.22 W

35°N 31°W - NORTH ATLANTIC



# U.S. AIR FORCE TECHNICAL INFORMATION

This questionnaire has been prepared so that you can give the U.S. Air Force as much information as possible concerning the unidentified aerial phenomenon that you have observed. Please try to answer as many questions as you possibly can. The information that you give will be used for research purposes. Your name will not be used in connection with any statements, conclusions, or publications without your permission. We request this personal information so that if it is deemed necessary, we may contact you for further details.

1. When did you see the object?

1 2 1965  
Day Month Year

2. Time of day:

19 46  
Hour Minutes

(Circle One): A.M. or P.M.

3. Time Zone:

(Circle One): a. Eastern  
b. Central  
c. Mountain  
d. Pacific  
e. Other GMT

(Circle One): a. Daylight Saving  
b. Standard

4. Where were you when you saw the object?

JACKSONVILLE ATCT  
P.O. [REDACTED]  
Nearest Postal Address

JACKSONVILLE  
City or Town

FLORIDA  
State or County

5. How long was object in sight? (Total Duration)

60  
Hours Minutes Seconds

a. Certain  
b. Fairly certain  
c. Not very sure  
d. Just a guess ☒

5.1 How was time in sight determined?

ESTIMATED

5.2 Was object in sight continuously?

Yes X No ☐

6. What was the condition of the sky?

DAY  
a. Bright  
b. Cloudy

NIGHT  
a. Bright ☒  
b. Cloudy

7. IF you saw the object during DAYLIGHT, where was the SUN located as you looked at the object?

(Circle One): a. In front of you  
b. In back of you  
c. To your right

d. To your left  
e. Overhead  
f. Don't remember



8. IF you saw the object at NIGHT, what did you notice concerning the STARS and MOON?

8.1 STARS (Circle One):

- a. None
- b. A few
- c. Many ✓
- d. Don't remember

8.2 MOON (Circle One):

- a. Bright moonlight
- b. Dull moonlight
- c. No moonlight - pitch dark
- d. Don't remember ✓

9. What were the weather conditions at the time you saw the object?

CLOUDS (Circle One):

- a. Clear sky ✓
- b. Hazy
- c. Scattered clouds
- d. Thick or heavy clouds

WEATHER (Circle One):

- a. Dry ✓
- b. Fog, mist, or light rain
- c. Moderate or heavy rain
- d. Snow
- e. Don't remember

10. The object appeared: (Circle One):

- a. Solid
- b. Transparent
- c. Vapor
- d. As a light ✓
- e. Don't remember

11. If it appeared as a light, was it brighter than the brightest stars? (Circle One):

- a. Brighter
- b. Dimmer
- c. About the same ✓
- d. Don't know

11.1 Compare brightness to some common object:

12. The edges of the object were:

(Circle One): a. Fuzzy or blurred

b. Like a bright star ✓

c. Sharply outlined

d. Don't remember

e. Other \_\_\_\_\_

13. Did the object:

(Circle One for each question)

- |   |     |      |            |
|---|-----|------|------------|
| a. Appear to stand still at any time?           | Yes | No ✓ | Don't know |
| b. Suddenly speed up and rush away at any time? | Yes | No ✓ | Don't know |
| c. Break up into parts or explode?              | Yes | No ✓ | Don't know |
| d. Give off smoke?                              | Yes | No ✓ | Don't know |
| e. Change brightness?                           | Yes | No ✓ | Don't know |
| f. Change shape?                                | Yes | No ✓ | Don't know |
| g. Flash or flicker?                            | Yes | No ✓ | Don't know |
| h. Disappear and reappear?                      | Yes | No ✓ | Don't know |



14. Did the ~~object~~ disappear while you were watching it? If so, how?

NO

15. Did the ~~object~~ move behind something at any time, particularly a cloud?

(Circle One):

Yes

No ☒

Don't Know.

IF you answered YES, then tell what

it moved behind:

16. Did the ~~object~~ move in front of something at any time, particularly a cloud?

(Circle One):

Yes

No ☒

Don't Know.

IF you answered YES, then tell what

in front of:

17. Tell in a few words the following things about the object:

a. Sound

NONE

b. Color

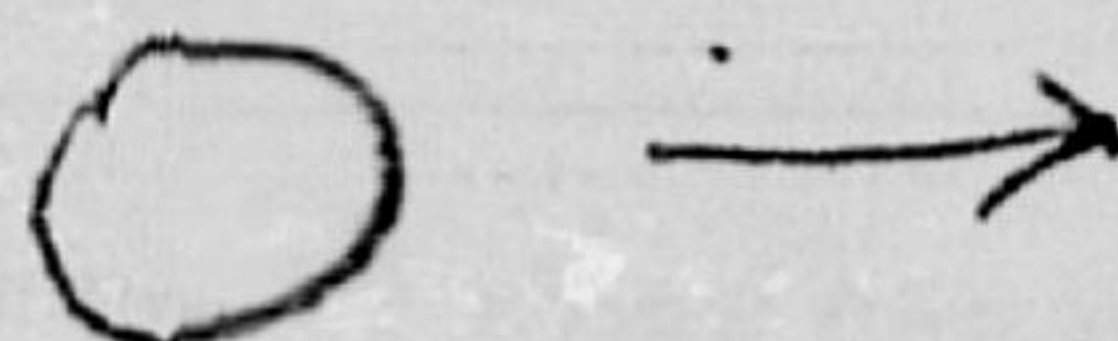
WHITE

18. We wish to know the angular size. Hold a match stick at arm's length in line with a known object and note how much of the object is covered by the head of the match. If you had performed this experiment at the time of the sighting, how much of the object would have been covered by the match head?

ALL OF IT WOULD HAVE BEEN OBSCURED

19. Draw a picture that will show the shape of the object or objects. Label and include in your sketch any details of the object that you saw such as wings, protrusions, etc., and especially exhaust trails or vapor trails.

Place an arrow beside the drawing to show the direction the object was moving.



I have drawn this as circular because there were no unusually shapes to the object.



20. Do you think you can estimate the speed of the object?

(Circle One) Yes No ☒

IF you answered YES, then what speed would you estimate? \_\_\_\_\_

21. Do you think you can estimate how far away from you the object was?

(Circle One) Yes No ☒

IF you answered YES, then how far away would you say it was? \_\_\_\_\_

22. Where were you located when you saw the object?

(Circle One):

- a. Inside a building ☒
- b. In a car
- c. Outdoors
- d. In an airplane (type)
- e. At sea
- f. Other \_\_\_\_\_

23. Were you (Circle One)

- a. In the business section of a city?
- b. In the residential section of a city?
- c. In open countryside?
- d. Near an airfield? ☒
- e. Flying over a city?
- f. Flying over open country?
- g. Other \_\_\_\_\_

24. IF you were MOVING IN AN AUTOMOBILE or other vehicle at the time, then complete the following questions:

24.1 What direction were you moving? (Circle One)

- |              |              |              |              |
|--------------|--------------|--------------|--------------|
| a. North     | c. East      | e. South     | g. West      |
| b. Northeast | d. Southeast | f. Southwest | h. Northwest |

24.2 How fast were you moving? \_\_\_\_\_ miles per hour.

24.3 Did you stop at any time while you were looking at the object?

(Circle One) Yes No

25. Did you observe the object through any of the following?

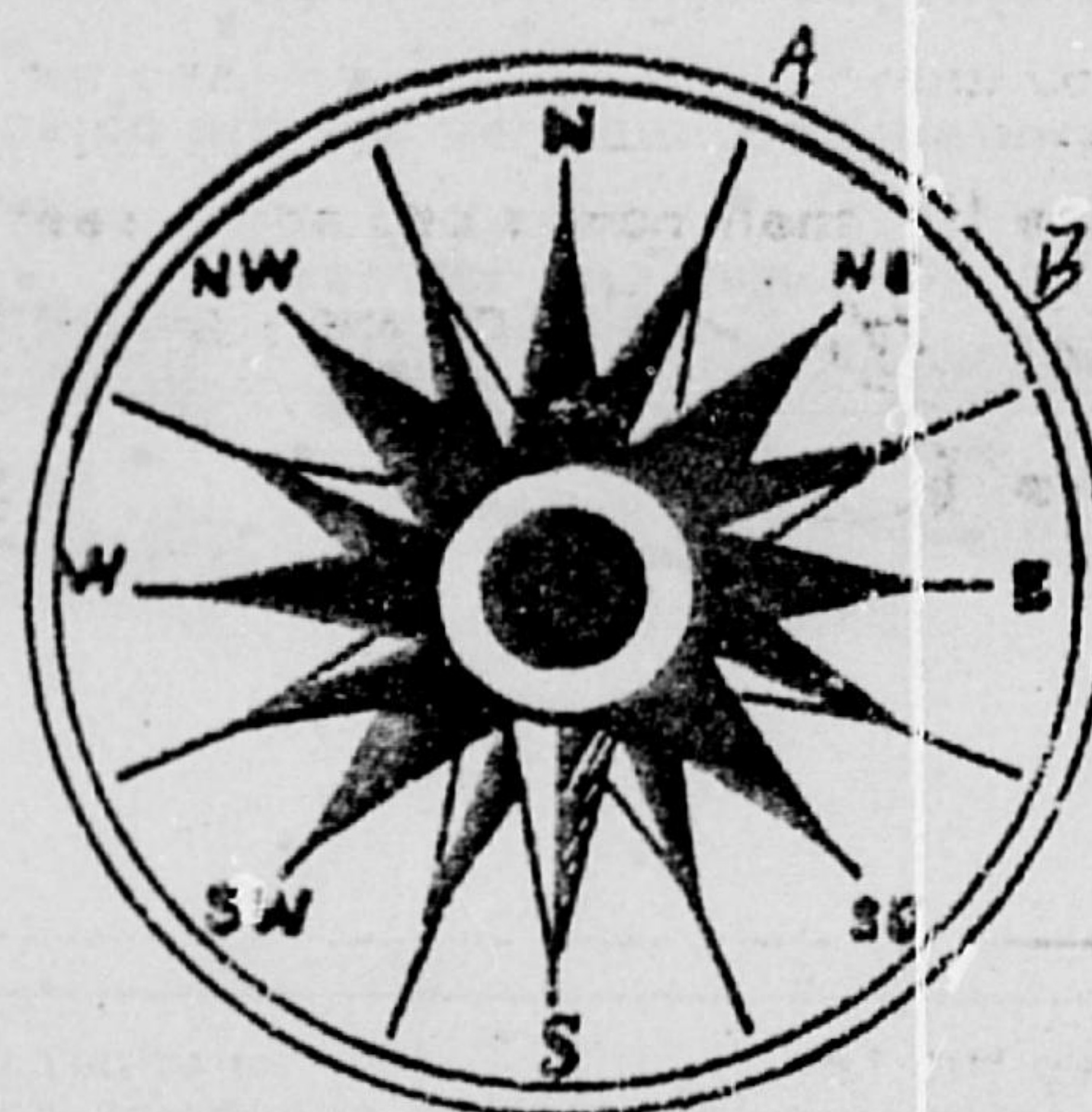
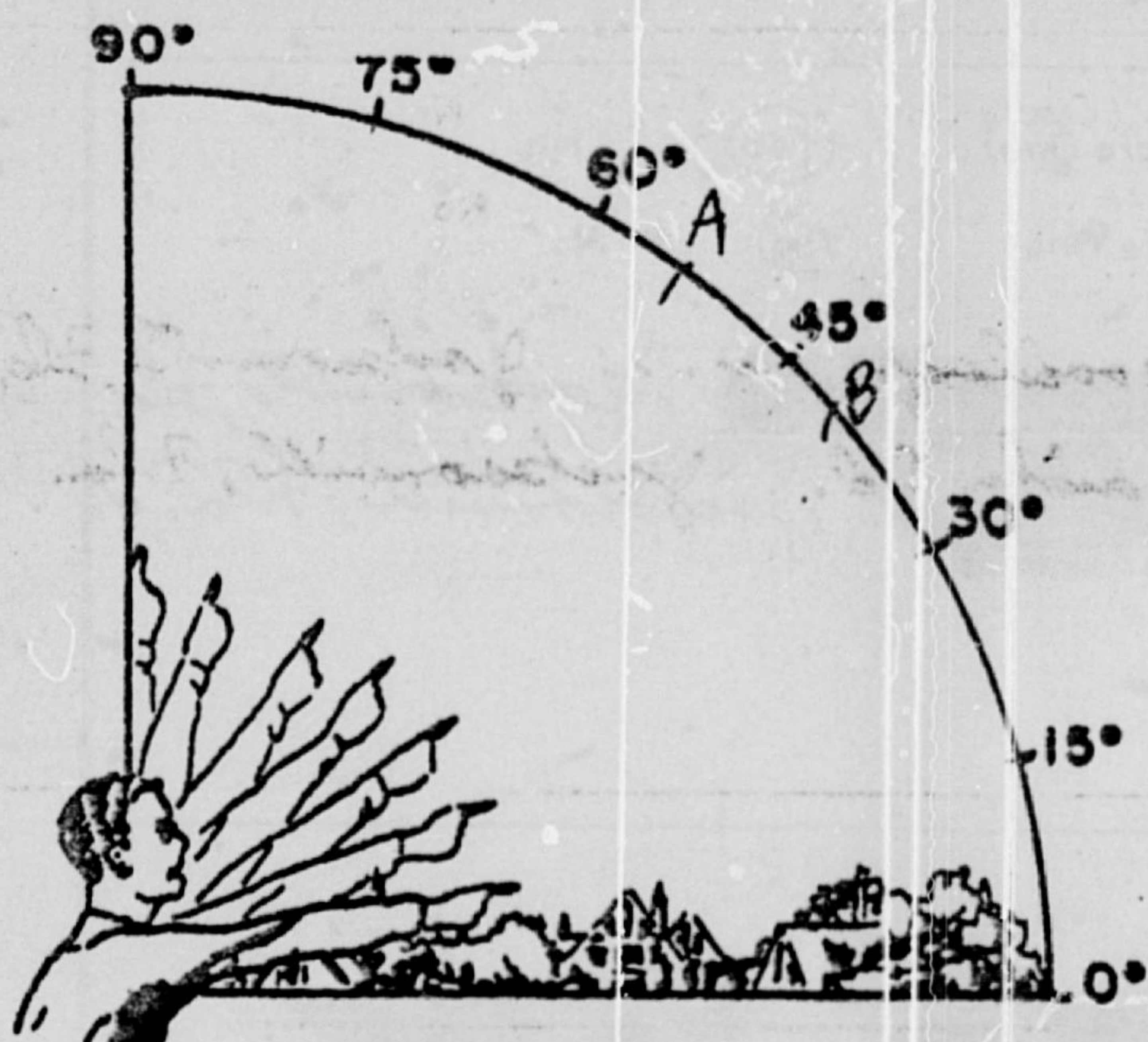
- |                 |   |  |               |   |  |
|-----------------|---|--|---------------|---|--|
| a. Eyeglasses   | Yes                                     | No <input checked="" type="checkbox"/> | e. Binoculars | Yes <input checked="" type="checkbox"/> | No                                     |
| b. Sun glasses  | Yes                                     | No <input checked="" type="checkbox"/> | f. Telescope  | Yes                                     | No <input checked="" type="checkbox"/> |
| c. Windshield   | Yes                                     | No <input checked="" type="checkbox"/> | g. Theodolite | Yes                                     | No <input checked="" type="checkbox"/> |
| d. Window glass | Yes <input checked="" type="checkbox"/> | No                                     | h. Other      | _____                                   |  |

26. In order that you can give as clear a picture as possible of what you saw, describe in your own words a common object or objects which, when placed up in the sky, would give the same appearance as the object which you saw.

*Because of its motion in relation to the stars it attracted my attention. I would consider this to be a artificial satellite from observations experienced in the past.*



27. In the following sketch, imagine that you are at the point shown. Place an "A" on the curved line to show how high the object was above the horizon (skyline) when you *first* saw it. Place a "B" on the same curved line to show how high the object was above the horizon (skyline) when you *last* saw it. Place an "A" on the compass when you *first* saw it. Place a "B" on the compass where you *last* saw the object.



28. Draw a picture that will show the motion that the object or objects made. Place an "A" at the beginning of the path, a "B" at the end of the path, and show any changes in direction during the course.



29. IF there was MORE THAN ONE object, then how many were there? \_\_\_\_\_  
Draw a picture of how they were arranged, and put an arrow to show the direction that they were traveling.



Yes. Several times but photos are not available. Many times these sightings were coincidental with newspaper notices of anticipated sightings.

31. Was anyone else with you at the time you saw the object? (Circle One)

Yes

No

31.1 IF you answered YES, did they see the object too? (Circle One)

(Y03)

No.

31.2 Please list their names and addresses:

Jacksonville, Fla.  
Jacksonville, Fla.

32. Please give the following information about yourself:

NAME \_\_\_\_\_

Last Name

First Name

Middle Name

ADDRESS

**Street**

City

Zone

State

TELEPHONE NUMBER

AGE 33

SEX

Indicate any additional information about yourself, including any special experience, which might be pertinent.

air traffic controller

33. When and to whom did you report that you had seen the object?

204

Month

Year

Jacksonville Air Route  
Traffic Control Center.



34. Date you completed this questionnaire:

5

Day

3

Month

1965

Year

35. Information which you feel pertinent and which is not adequately covered in the specific points of the questionnaire or a narrative explanation of your sighting.

NONE



FEBRUARY 2, 1965											
1	27.5	87.66	81.5	27.8	-82.98	757	90.00	27.8	-83.05	757	90.00
2	16.1	114.93	80.0	26.2	-50.84	763	57.50	29.4	-115.17	750	122.50
3	4.6	142.20	70.0	22.2	-18.52	778	24.3	33.3	-147.52	733	155.70
4	53.1	169.47	50.0	15.7	-6.26	789	10.9	39.7	-159.83	704	169.00
5	41.7	196.74	40.0	12.5	-4.02	792	8.3	42.7	-162.10	690	171.70
6	30.2	224.01	30.0	9.4	-2.57	793	6.6	45.7	-163.59	678	173.30
7	18.8	251.29	20.0	6.2	-1.54	793	5.6	48.7	-164.67	667	174.3
8	7.3	278.56	0.	0.	0.	785	4.8	54.6	-166.29	651	175.1
9	59.8	305.83	-20.0	-6.2	1.54	774	5.6	-48.0	164.83	648	174.3
10	44.4	333.10	-30.0	-9.3	2.58	769	6.60	-45.1	163.79	652	173.3
11	32.9	0.37	-40.0	-12.4	4.34	758	8.30	-42.1	162.26	657	171.6
12	21.4	27.64	-50.0	-15.5	6.30	748	10.90	-39.1	159.97	665	169.0
			-60.0	-21.9	18.59	726	24.30	-32.9	147.64	687	155.7
			-80.0	-25.8	50.95	712	57.50	-29.1	115.26	702	122.50
			-81.5	-27.4	83.07	700	90.00	-27.5	83.14	708	90.00
FEBRUARY 2, 1965											
1	10.0	54.91	81.5	27.8	-82.98	755	90.00	27.8	-83.05	755	90.00
2	58.5	82.18	80.0	26.2	-50.84	761	57.50	29.4	-115.17	748	122.50
3	47.5	109.45	70.0	22.2	-18.52	774	24.3	33.3	-147.52	730	155.70
4	35.8	136.72	50.0	15.7	-6.26	788	10.9	39.7	-159.83	700	169.00
5	24.1	163.99	40.0	12.5	-4.02	792	8.3	42.7	-162.11	687	171.60
6	12.7	191.26	30.0	9.4	-2.57	793	6.6	45.7	-163.59	674	173.30
7	1.7	218.54	20.0	6.2	-1.54	793	5.6	48.7	-164.67	664	174.3
8	49.7	245.81	0.	0.	0.	788	4.8	54.6	-166.29	651	175.1
9	38.3	273.08	-20.0	-6.2	1.54	777	5.6	-48.0	164.83	648	174.3
10	26.8	300.35	-30.0	-9.3	2.58	769	6.60	-45.1	163.79	652	173.3
11	15.3	327.62	-40.0	-12.4	4.34	761	8.30	-42.1	162.26	657	171.6
12	3.0	354.89	-50.0	-15.5	6.30	752	10.90	-39.1	159.97	665	169.0
13	22.4	22.16	-60.0	-21.9	18.58	729	24.30	-32.9	147.64	687	155.7
			-80.0	-25.8	50.94	714	57.50	-29.1	115.26	702	122.50
			-81.5	-27.4	83.07	700	90.00	-27.5	83.14	708	90.00



SATELLITE 1960 IOTA 1 FOR OTHER LATITUDES											
EQUATOR S-N			SOUTH-NORTH			NORTH-SOUTH					
TIME (UT)	LONG. (W)	LAT.	TIME CORR.	LONG. CORR.	HT. (MI)	BEAR. (N-E)	TIME CORR.	LONG. CORR.	HT. (MI)	BEAR. (N-E)	
JANUARY 31, 1965											
0 30.1	159.89	47.4	28.1	-82.87	874	90.0°	28.1	-82.91	874	90.0°	
2 24.1	188.73	45.0	23.0	-60.84	861	72.3°	33.3	-104.93	886	107.7°	
4 18.1	217.58	40.0	18.9	-45.61	852	60.7°	37.4	-120.15	895	119.3°	
6 12.1	246.42	35.0	15.9	-35.98	846	54.0°	40.5	-129.75	901	126.0°	
8 6.1	275.26	30.0	13.3	-28.65	841	49.4°	43.2	-137.07	906	130.6°	
10 0.1	304.11	20.0	8.6	-17.34	835	43.7°	48.0	-148.34	914	136.3°	
11 54.1	332.95	0.	0.	0.	834	39.9°	56.9	-165.61	923	140.1°	
13 48.1	1.80	-20.0	-8.6	17.34	846	43.7°	-48.3	148.25	925	136.4°	
15 42.1	30.64	-30.0	-13.3	28.64	857	49.4°	-43.5	136.99	922	130.6°	
17 36.1	59.49	-35.0	-16.0	35.97	863	54.0°	-40.8	129.68	920	126.0°	
19 30.1	88.33	-40.0	-19.0	45.58	872	60.7°	-37.7	120.08	916	119.3°	
21 24.1	117.17	-45.0	-23.1	60.81	883	72.3°	-33.5	104.87	908	107.7°	
23 18.2	146.02	-47.4	-28.3	82.83	897	90.0°	-28.3	82.87	897	90.0°	
FEBRUARY 1, 1965											
1 12.2	174.86	47.4	28.1	-82.87	871	90.0°	28.1	-82.91	871	90.0°	
3 6.2	203.71	45.0	23.0	-60.85	859	72.3°	33.2	-104.93	883	107.7°	
5 0.2	232.55	40.0	18.9	-45.61	850	60.7°	37.4	-120.15	892	119.3°	
6 54.2	261.39	35.0	15.9	-35.98	844	54.0°	40.4	-129.76	898	126.0°	
8 48.2	290.24	30.0	13.3	-28.65	840	49.4°	43.1	-137.08	904	130.6°	
10 42.2	319.08	20.0	8.6	-17.34	835	43.7°	47.9	-148.35	912	136.3°	
12 36.2	347.93	0.	0.	0.	835	39.9°	56.8	-165.62	922	140.1°	
14 30.2	16.77	-20.0	-8.6	17.34	848	43.7°	-40.4	148.24	925	136.4°	
16 24.2	45.61	-30.0	-13.3	28.63	859	49.4°	-43.5	136.98	924	130.6°	
18 18.2	74.46	-35.0	-16.0	35.96	866	54.0°	-40.8	129.67	921	126.0°	
20 12.2	103.30	-40.0	-19.0	45.58	875	60.7°	-37.7	120.07	918	119.3°	
22 6.2	132.14	-45.0	-23.1	60.81	886	72.3°	-33.5	104.86	911	107.7°	
		-47.4	-28.3	82.82	900	90.0°	-28.3	82.86	900	90.0°	
FEBRUARY 2, 1965											
0 0.2	160.99	47.4	28.1	-82.88	868	90.0°	28.1	-82.92	868	90.0°	
1 54.2	189.83	45.0	23.0	-60.85	856	72.3°	33.2	-104.94	880	107.7°	
3 48.2	218.68	40.0	18.9	-45.61	848	60.7°	37.3	-120.16	889	119.3°	
5 42.2	247.52	35.0	15.9	-35.98	842	54.0°	40.4	-129.77	896	126.0°	
7 36.2	276.36	30.0	13.3	-28.65	839	49.4°	43.1	-137.09	901	130.6°	
9 30.2	305.21	20.0	8.6	-17.34	834	43.7°	47.9	-148.36	909	136.3°	
11 24.2	334.05	0.	0.	0.	836	39.9°	56.8	-165.63	921	140.1°	
13 18.2	2.89	-20.0	-8.6	17.34	850	43.7°	-40.4	148.23	926	136.4°	
15 12.2	31.74	-30.0	-13.4	28.63	862	49.4°	-43.5	136.97	925	130.6°	
17 6.2	60.58	-35.0	-16.0	35.96	869	54.0°	-40.8	129.66	923	126.0°	
19 0.3	89.42	-40.0	-19.0	45.58	878	60.7°	-37.7	120.06	920	119.3°	
20 54.3	118.27	-45.0	-23.1	60.80	889	72.3°	-33.6	104.85	913	107.7°	
22 48.3	147.11	-47.4	-28.3	82.81	903	90.0°	-28.3	82.85	903	90.0°	
FEBRUARY 3, 1965											
0 42.3	175.95	47.4	28.1	-82.88	865	90.0°	28.1	-82.92	865	90.0°	
2 36.3	204.80	45.0	23.0	-60.85	854	72.3°	33.2	-104.94	877	107.7°	
4 30.3	233.64	40.0	18.9	-45.61	846	60.7°	37.3	-120.17	885	119.3°	
6 24.3	262.48	35.0	15.9	-35.98	841	54.0°	40.4	-129.77	893	126.0°	
8 18.3	291.33	30.0	13.3	-28.65	838	49.4°	43.1	-137.09	898	130.6°	
10 12.3	320.17	20.0	8.6	-17.34	834	43.7°	47.9	-148.36	907	136.3°	
12 6.3	349.01	0.	0.	0.	837	39.9°	56.7	-165.64	920	140.1°	
14 0.3	17.85	-20.0	-8.6	17.33	852	43.7°	-48.4	148.22	926	136.4°	
15 54.3	46.70	-30.0	-13.4	28.63	865	49.4°	-43.6	136.96	926	130.6°	
17 48.3	75.54	-35.0	-16.0	35.96	872	54.0°	-40.9	129.65	924	126.0°	
19 42.3	104.38	-40.0	-19.1	45.57	881	60.7°	-37.8	120.05	922	119.3°	
21 36.3	133.23	-45.0	-23.2	60.79	892	72.3°	-33.6	104.84	916	107.7°	
23 30.3	162.07	-47.4	-28.4	82.80	905	90.0°	-28.4	82.84	905	90.0°	

SATELLITE 1960 IOTA 1 FOR OTHER LATITUDES											
EQUATOR S-N			SOUTH-NORTH			NORTH-SOUTH					
TIME (UT)	LONG. (W)	LAT.	TIME CORR.	LONG. CORR.	HT. (MI)	BEAR. (N-E)	TIME CORR.	LONG. CORR.	HT. (MI)	BEAR. (N-E)	
FEBRUARY 4, 1965											
1 24.3	190.91	47.4	28.0	-82.88	862	90.0°	28.1	-82.92	862	90.0°	
3 18.3	219.75	45.0	22.9	-60.85	851	72.3°	33.2	-104.95	874	107.7°	
5 12.3	248.60	40.0	18.9	-45.61	844	60.7°	37.3	-120.17	883	119.3°	
7 6.3	277.44	35.0	15.9	-35.98	840	54.0°	40.4	-129.78	889	126.0°	
9 0.3	306.28	30.0	13.3	-28.65	837	49.4°	43.0	-137.10	895	130.6°	
10 54.3	335.13	20.0	8.6	-17.34	834	43.7°	47.8	-148.37	904	136.3°	
12 48.3	3.97	0.	0.	0.	838	39.9°	56.7	-165.65	918	140.1°	
14 42.3	32.81	-20.0	-8.7	17.33	855	43.7°	-48.5	148.21	926	136.4°	
16 36.3	61.65	-30.0	-13.4	28.63	868	49.4°	-43.6	136.95	926	130.6°	
18 30.3	90.50	-35.0	-16.0	35.95	875	54.0°	-40.9	129.64	926	126.0°	
20 24.3	119.34	-40.0	-19.1	45.57	884	60.7°	-37.8	120.04	923	119.3°	
22 18.3	148.18	-45.0	-23.2	60.79	895	72.3°	-33.6	104.84	918	107.7°	
		-47.4	-28.4	82.80	908	90.0°	-28.4	82.84	908	90.0°	
FEBRUARY 5, 1965											
0 12.3	177.02	47.4	28.0	-82.88	860	90.0°	28.1	-82.92	860	90.0°	
2 6.3	205.86	45.0	22.9	-60.85	849	72.3°	33.2	-104.95	871	107.7°	
4 0.3	234.71	40.0	18.9	-45.61	843	60.7°	37.3	-120.18	880	119.3°	
5 54.3	263.55	35.0	15.9	-35.98	839	54.0°	40.3	-129.79	886	126.0°	
7 48.3	292.39	30.0	13.3	-28.65	836	49.4°	43.0	-137.11	892	130.6°	
9 42.3	321.23	20.0	8.6	-17.34	834	43.7°	47.8	-148.38	902	136.3°	
11 36.3	350.08	0.	0.	0.	840	39.9°	56.7	-165.66	916	140.1°	
13 30.3	18.92	-20.0	-8.7	17.33	857	43.7°	-48.5	148.20	926	136.4°	
15 24.3	47.76	-30.0	-13.4	28.62	870	49.4°	-43.7	136.94	927	130.6°	
17 18.3	76.60	-35.0	-16.0	35.95	878	54.0°	-41.0	129.63	926	126.0°	
19 12.3	105.44	-40.0	-19.1	45.56	887	60.7°	-37.8	120.03	925	119.3°	
21 6.3	134.29	-45.0	-23.2	60.78	898	72.3°	-33.7	104.83	920	107.7°	
23 0.3	163.13	-47.4	-28.4	82.79	911	90.0°	-28.4	82.83	911	90.0°	
FEBRUARY 6, 1965											
0 54.3	191.97	47.4	28.0	-82.88	857	90.0°	28.0	-82.93	857	90.0°	
2 48.2	220.81	45.0	22.9	-60.85	848	72.3°	33.2	-104.95	868	107.7°	
4 42.2	249.65	40.0	18.9	-45.61	841	60.7°	37.3	-120.18	877	119.3°	
6 36.2	278.50	35.0	15.9	-35.98	838	54.0°	40.3	-129.79	885	126.0°	
8 30.2	307.34	30.0	13.3	-28.65	836	49.4°	43.0	-137.11	890	130.6°	
10 24.2	336.18	20.0	8.6	-17.34	834	43.7°	47.8	-148.39	899	136.3°	
12 18.2	5.02	0.	0.	0.	842	39.9°	56.6	-165.67	914	140.1°	
14 12.2	33.86	-20.0	-8.7	17.33	860	43.7°	-48.6	148.19	925	136.4°	
16 6.2	62.70	-30.0	-13.4	28.62	873	49.4°	-43.7	136.93	927	130.6°	
18 0.2	91.55	-35.0	-16.1	35.94	881	54.0°	-41.0	129.62	927	126.0°	
19 54.2	120.39	-40.0	-19.1	45.56	890	60.7°	-37.9	120.02	926	119.3°	
21 48.2	149.23	-45.0	-23.2	60.78	901	72.3°	-33.7	104.82	922	107.7°	
23 42.2	178.07	-47.4	-28.5	82.78	913	90.0°	-28.5	82.82	913	90.0°	

# MODIFIED ORBITAL ELEMENTS FOR EARTH SATELLITE 1960 IOTA 1

REFERENCE TIME 1965 Y 1 M 23 D 0 H 29.62 M UT  
INCLINATION 47.25 DEG.  
ASCENDING NODE (LONG.) 125.15 DEG. WEST  
PRIME SWEEP INTERVAL ONE DAY -17.10 MIN.  
ARGUMENT OF PERIGEE 343.90 DEG.  
RATE OF CHANGE 0.30352 DEG. PER PERIOD  
ANOMALISTIC PERIOD 114.115 MIN.