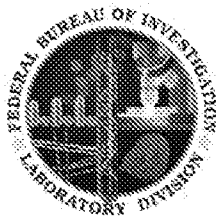


UNCLASSIFIED



FBI Laboratory

2501 Investigation Parkway
Quantico, Virginia 221354940/4946 Fowler Road
Huntsville, Alabama 35898

LABORATORY REPORT

To:
SPECIAL AGENT

Special Agent
Pittsburgh

Date: July 19, 2024

Case ID No.: PG-3947335

Lab No.: 2024-01571-12

b6 -1
b7C -1

Communication(s): July 16, 2024

Agency Reference(s):

Subject(s):

Victim(s):

Discipline(s): Technical Exploitation

b7E -2

This document may contain privileged and/or personally identifiable information, including information related to juveniles and other protected individuals. This document must be afforded the protection required by applicable law, regulation, and policy. If you are not the intended recipient of this document, please destroy it promptly without further retention or dissemination, unless otherwise required by law.

FBI Laboratory Evidence Designator(s):

Item 69 Drone from front passenger area of Thomas Matthew Crooks's vehicle (1B26, E8559756)

Item 69-1 Battery from Item 69 Drone (1B26, E8559756)

Item 70-2 Battery from Item 70 Drone accessories (1B26, E8559756)

Item 70-3 Battery from Item 70 Drone accessories (1B26, E8559756)

Results of Examination:

Request:

Per Laboratory Exam Request dated 7/16/2024, contributor requested that all examinations deemed appropriate be conducted.

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Analysis Summary:

Item 69 consists of an unmodified commercial-off-the-shelf COTS Da-Jiang Innovations (DJI) Mavic Air 2S quadcopter. This device is an unmanned aircraft system (UAS) with video and photo capability. As submitted, no micro SD card was installed on the aircraft.

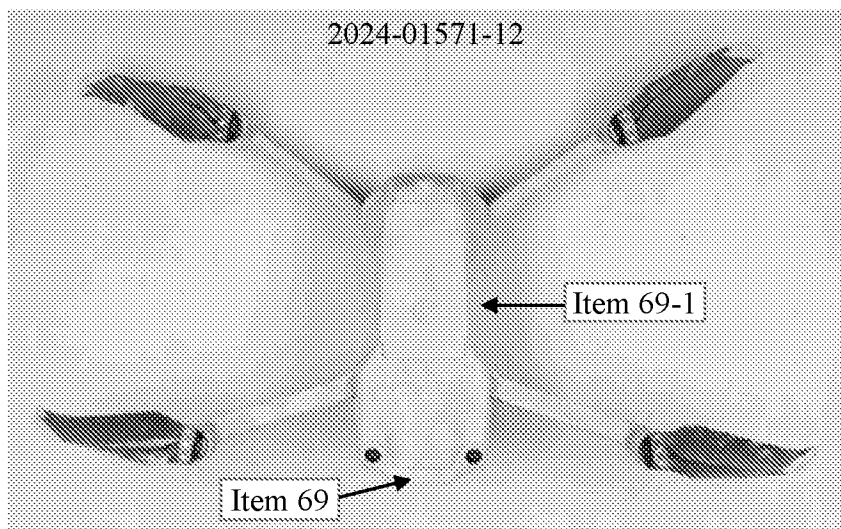


Figure 1: Profile DJI Mavic Air 2S and Battery (Item 69, Item 69-1)

Items 69-1, 70-2, and 70-3 are DJI Lithium Ion Polymer Rechargeable Battery (Model - BWX232-3750-11.04). As submitted, Item 69-1 was installed on Item 69. Items 70-2 and 70-3 were part of the accessories bag.

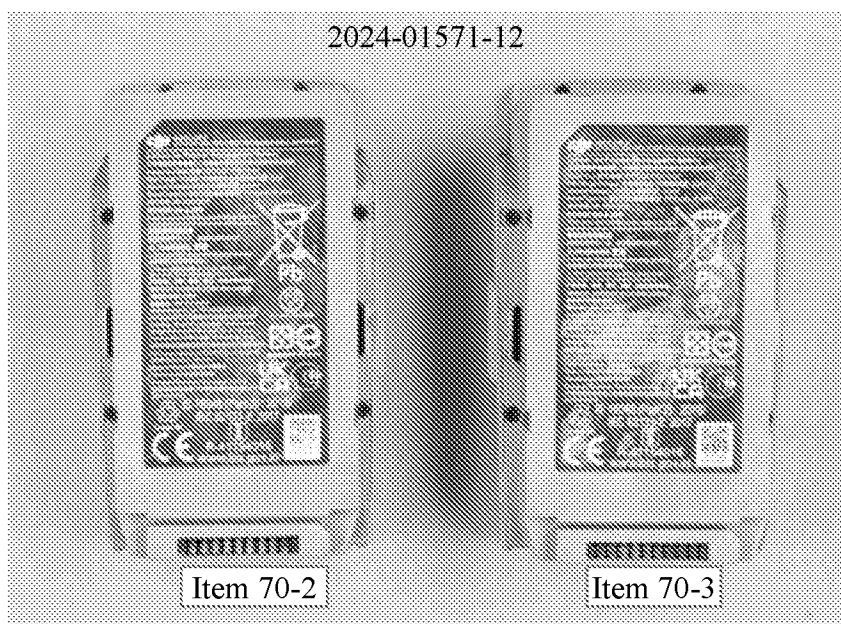


Figure 2: DJI Mavic Air 2S Batteries (Item 70-2, Item 70-3)

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[REDACTED] successfully extracted 40 images (20 high-resolution and 20 lower quality duplicates) and eight flight logs from Item 69. Analysis of the exchangeable image file format (EXIF) data from the images indicated they were taken in the Pittsburgh, PA area between February 6, 2024 and February 27, 2024.

b7E -2

From the eight extracted flight logs, flights labeled FLY009, FLY 010, FLY012, and FLY013 occurred in the Bethel Park, PA area between February 6, 2024 and February 13, 2024. Flights labeled FLY014 and FLY015 occurred in the Allegheny-West, PA area between February 20, 2024 and February 27, 2024. Flight labeled FLY016 occurred in the New Eagle, PA area on February 27, 2024. The latest flight labeled FLY017 occurred in the Butler, PA area on July 13, 2024 at approximately 19:51:46 Zulu time.

Methods and Results:

A Physical Description was performed on Item 69, Item 69-1, Item 70-2, and Item 70-3. An Electronic Data Recovery was performed on Item 69.

Physical Description:

Photographs of items as received are detailed in Figure 1 –Figure 2.

A physical description of the submitted items are detailed in Table 1 –Table 4.

Table 1: DJI Air 2S UAV Physical Description (Item 69)

Manufacturer	SZ DJI (Da-Jiang Innovations) Technology Co., LTD
UAV Version	DJI AIR 2S
UAV Model	DA2SUE1
S/N	3YTBJB00304Q8
CMIIT ID	2020AP13784
Color	Gray
Dimensions	180 x 97 x 77 mm (folded) (Comment) 183 x 253 x 77 mm (unfolded) (Comment)
Dimensions, diagonal length	302 mm (Comment)
Weight	1.31 lbs (595 g) (Comment)
Manufacturer Markings	Label
Handwritten Markings	None
Modifications	None
Comment: Physical information based on manufacturer specifications.	

Table 2: DJI Air 2S UAV Battery Physical Description (Item 69-1)

Manufacturer	SZ DJI (Da-Jiang Innovations) Technology Co., LTD
Version	Lithium-Ion Polymer Rechargeable Battery
Model	BWX232-3750-11.04
Color	Gray
S/N	57ZPJB8EA1008F
Max Charge Voltage	12.6V
Nominal Voltage	11.04V
Rated Capacity	3750mAh, 41.4Wh
Manufacturer Markings	Label
Handwritten Markings	None
Modifications	None
Comment: Physical information based on manufacturer specifications.	

Table 3: DJI Air 2S UAV Battery Physical Description (Item 70-2)

(Table is U//FOUO)	
Manufacturer	SZ DJI (Da-Jiang Innovations) Technology Co., LTD
Version	Lithium-Ion Polymer Rechargeable Battery
Model	BWX232-3750-11.04
Color	Gray
S/N	57ZPJB9EA103J4
Max Charge Voltage	12.6V
Nominal Voltage	11.04V
Rated Capacity	3750mAh, 41.4Wh
Manufacturer Markings	Label
Handwritten Markings	None
Modifications	None
Comment: Physical information based on manufacturer specifications.	

Table 4: DJI Air 2S UAV Battery Physical Description (Item 70-3)

(Table is U//FOUO)	
Manufacturer	SZ DJI (Da-Jiang Innovations) Technology Co., LTD
Version	Lithium-Ion Polymer Rechargeable Battery
Model	BWX232-3750-11.04
Color	Gray
S/N	57ZPJB8EA100NP
Max Charge Voltage	12.6V
Nominal Voltage	11.04V
Rated Capacity	3750mAh, 41.4Wh
Manufacturer Markings	Label
Handwritten Markings	None
Modifications	None
Comment: Physical information based on manufacturer specifications.	

Electronic Data Recovery:

extracted the following data from Item 69. All extracted data is stored on secondary evidence.

b7E -2

Table 5: DJI Air 2S Attributable Extracted Data (Item 69)

Device ID	3YTBJB00304Q8
Board ID	3XRBJAR10200Z1
DJI Build Version	10.10.39.20
UUID	d4e85555 ac370114 11
ADS-B Firmware Version	0.3.15
Number of times powered on	15

Table 6: DJI Air 2S Flight Logs (Item 69)

Flight	Starting Latitude	Starting Longitude	GPS Date
FLY009	40.3481094	-80.0455039	2024-02-06 14:12:28Z
FLY010	40.3452184	-80.0461485	2024-02-13 18:37:53Z
FLY012	40.3452675	-80.0461524	2024-02-13 18:55:01Z
FLY013	40.3453015	-80.0461364	2024-02-13 19:15:11Z

Flight	Starting Latitude	Starting Longitude	GPS Date
FLY014	40.4498213	-80.0104777	2024-02-20 15:51:31Z
FLY015	40.4497462	-80.0104912	2024-02-27 18:11:24Z
FLY016	40.2141753	-79.9618437	2024-02-27 19:17:16Z
FLY017	40.8606783	-79.9703431	2024-07-13 19:51:46Z

Table 7: DJI Air 2S Images (Item 69)

Image	Date	Time (Eastern Time)	Size	GPS Location (Lat, Long)
DJI_0001.JPG	02/06/2024	08:42 AM	8.4 MB	40.34786, -80.0452
DJI_0002.JPG	02/06/2024	08:52 AM	10.3 MB	40.34796, -80.04545
DJI_0003.JPG	02/13/2024	01:43 PM	8.1 MB	40.34454, -80.04792
DJI_0004.JPG	02/13/2024	01:47 PM	9.8 MB	40.34521, -80.04633
DJI_0005.JPG	02/13/2024	01:57 PM	7.8 MB	40.3474, -80.04426
DJI_0006.JPG	02/13/2024	01:58 PM	8.7 MB	40.34624, -80.04388
DJI_0007.JPG	02/20/2024	10:56 AM	7.4 MB	40.44887, -80.01192
DJI_0008.JPG	02/20/2024	10:56 AM	9.3 MB	40.44753, -80.01473
DJI_0009.JPG	02/20/2024	10:58 AM	9.4 MB	40.4491, -80.01402
DJI_0010.JPG	02/20/2024	11:04 AM	8.1 MB	40.44834, -80.01212
DJI_0011.JPG	02/27/2024	01:13 PM	8 MB	40.44823, -80.00661
DJI_0012.JPG	02/27/2024	01:13 PM	9.6 MB	40.44783, -80.00636
DJI_0013.JPG	02/27/2024	01:14 PM	9.9 MB	40.44742, -80.01445
DJI_0014.JPG	02/27/2024	01:17 PM	9.5 MB	40.45181, -80.01115
DJI_0015.JPG	02/27/2024	01:17 PM	9.6 MB	40.34796, -80.04545
DJI_0016.JPG	02/27/2024	02:18 PM	8.1MB	40.45251, -80.01122
DJI_0017.JPG	02/27/2024	02:19 PM	11 MB	40.21584, -79.96397
DJI_0018.JPG	02/27/2024	02:20 PM	8.2 MB	40.21557, -79.96273
DJI_0019.JPG	02/27/2024	02:21 PM	7.6 MB	40.21504, -79.96139
DJI_0020.JPG	02/27/2024	02:22 PM	8.3 MB	40.21642, -79.96387



Figure 3: Image DJI_0001.JPEG (Item 69)



Figure 4: Image DJI_0002.JPEG (Item 69)



Figure 5: Image DJI_0003.JPEG (Item 69)

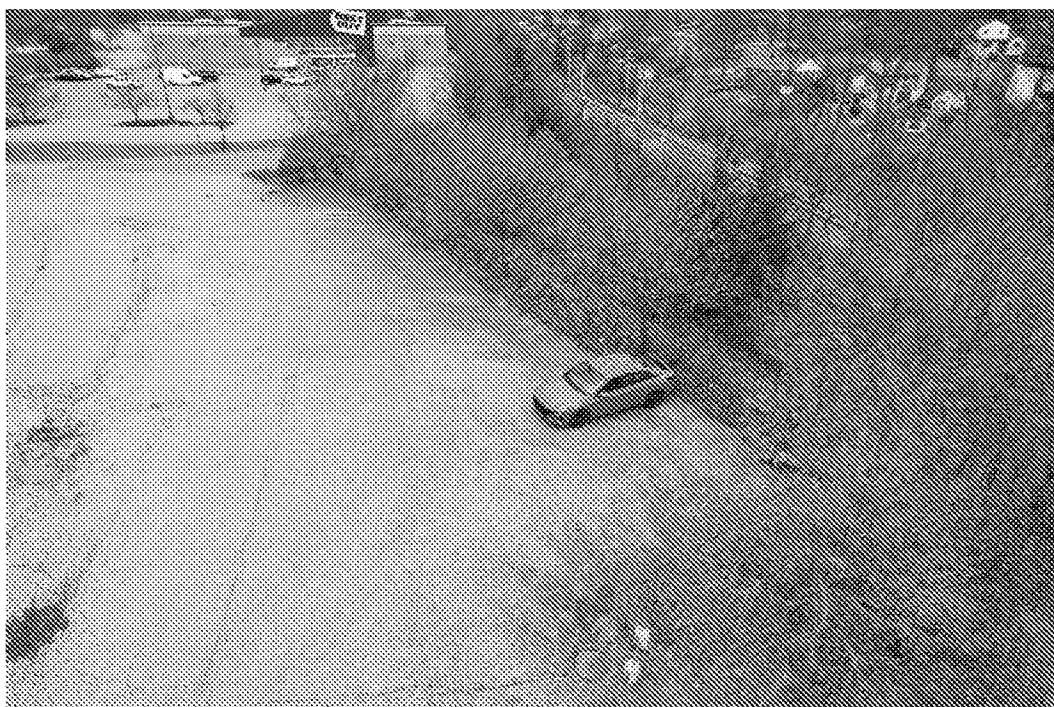


Figure 6: Image DJI_0004.JPEG (Item 69)



Figure 7: Image DJI_0005.JPEG (Item 69)



Figure 8: Image DJI_0006.JPEG (Item 69)

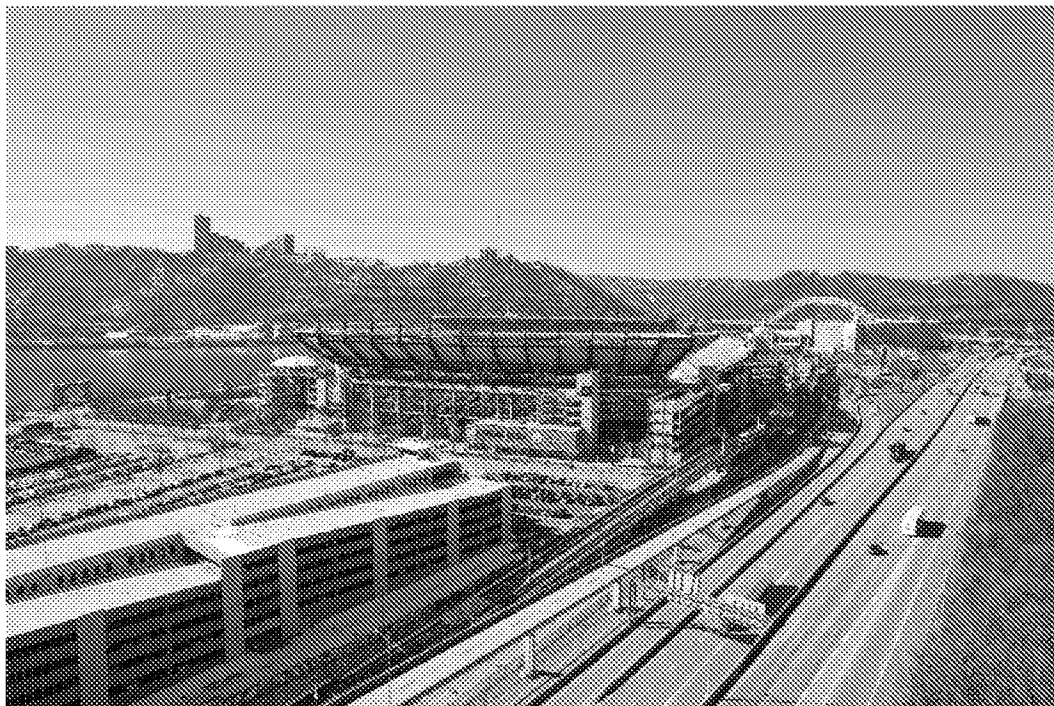


Figure 9: Image DJI_0007.JPEG (Item 69)

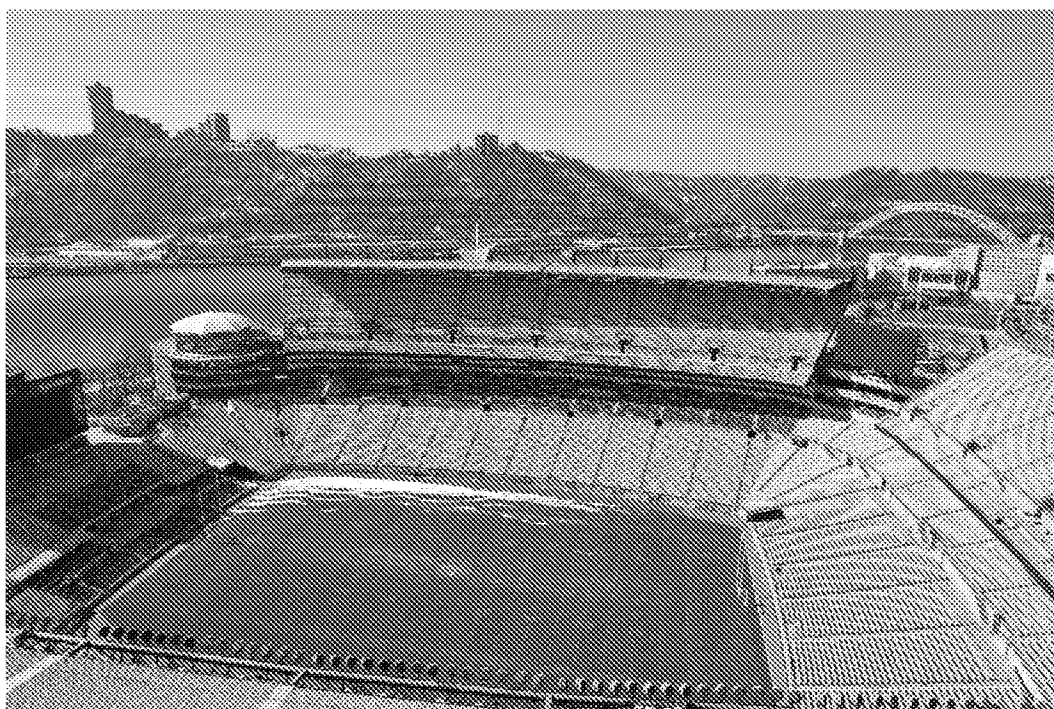


Figure 10: Image DJI_0008.JPEG (Item 69)

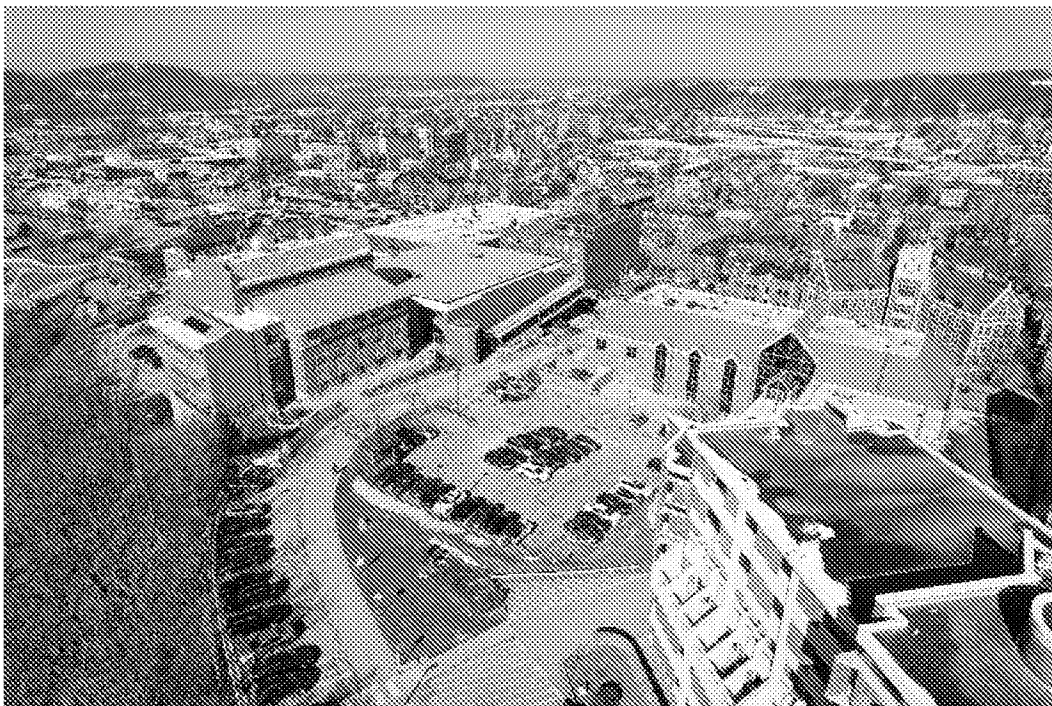


Figure 11: Image DJI_0009.JPEG (Item 69)



Figure 12: Image DJI_00010.JPEG (Item 69)



Figure 13: Image DJI_00011.JPEG (Item 69)



Figure 14: Image DJI_00012.JPEG (Item 69)



Figure 15: Image DJI_00013.JPEG (Item 69)



Figure 16: Image DJI_00014.JPEG (Item 69)

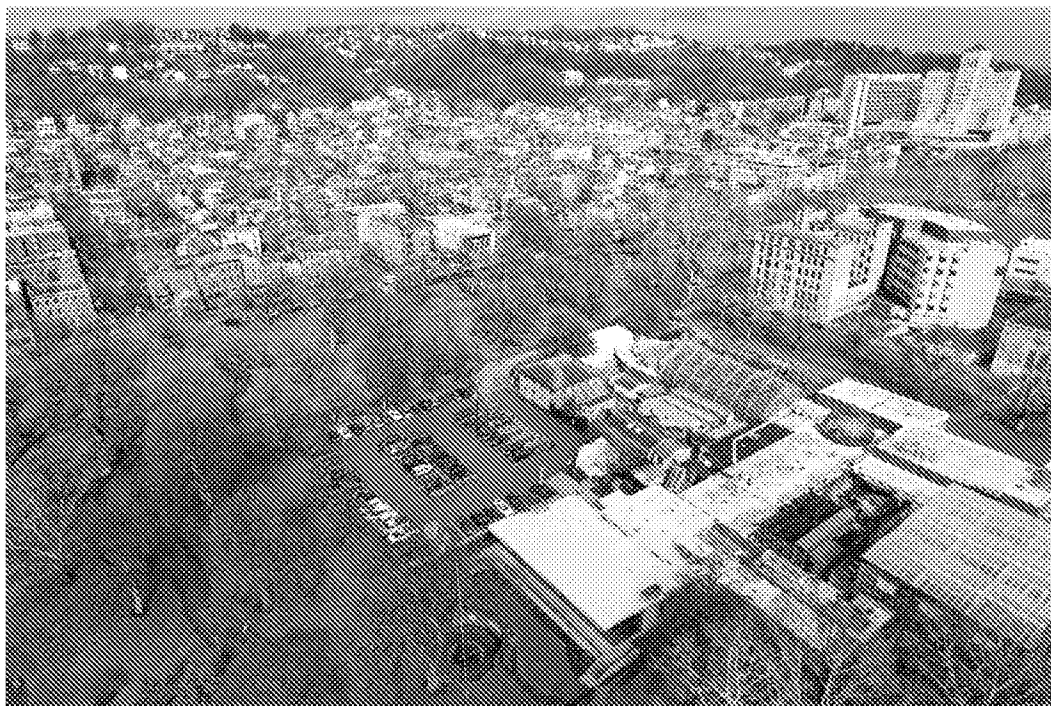


Figure 17: Image DJI_00015.JPEG (Item 69)



Figure 18: Image DJI_00016.JPEG (Item 69)

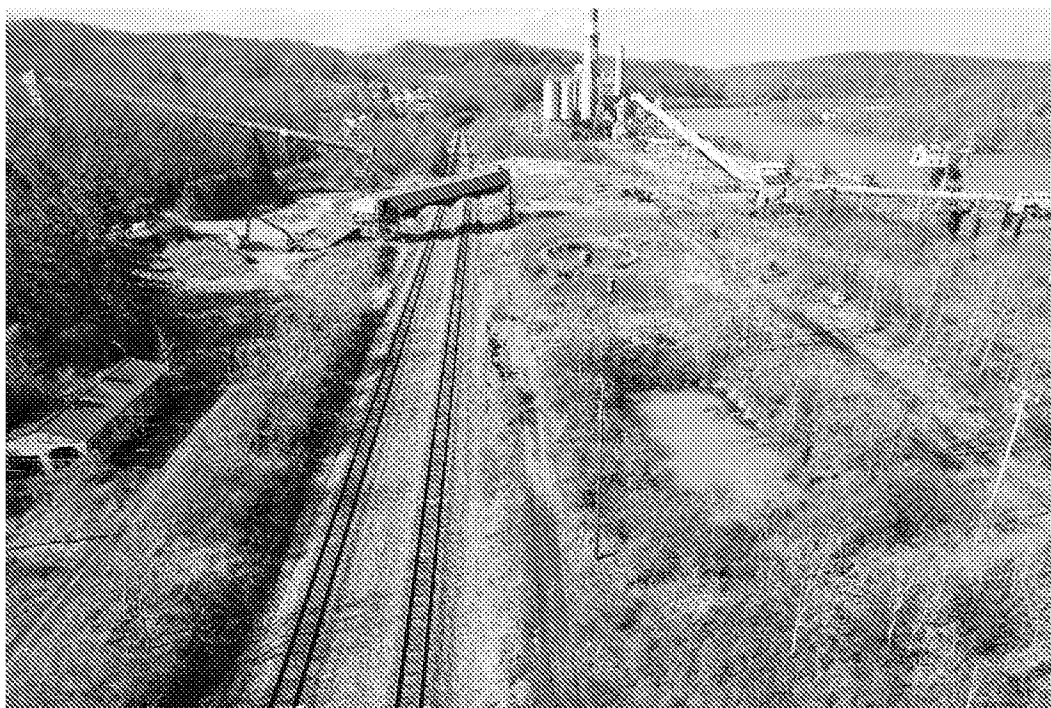


Figure 19: Image DJI_00017.JPEG (Item 69)



Figure 20: Image DJI_00018.JPEG (Item 69)



Figure 21: Image DJI_00019.JPEG (Item 69)

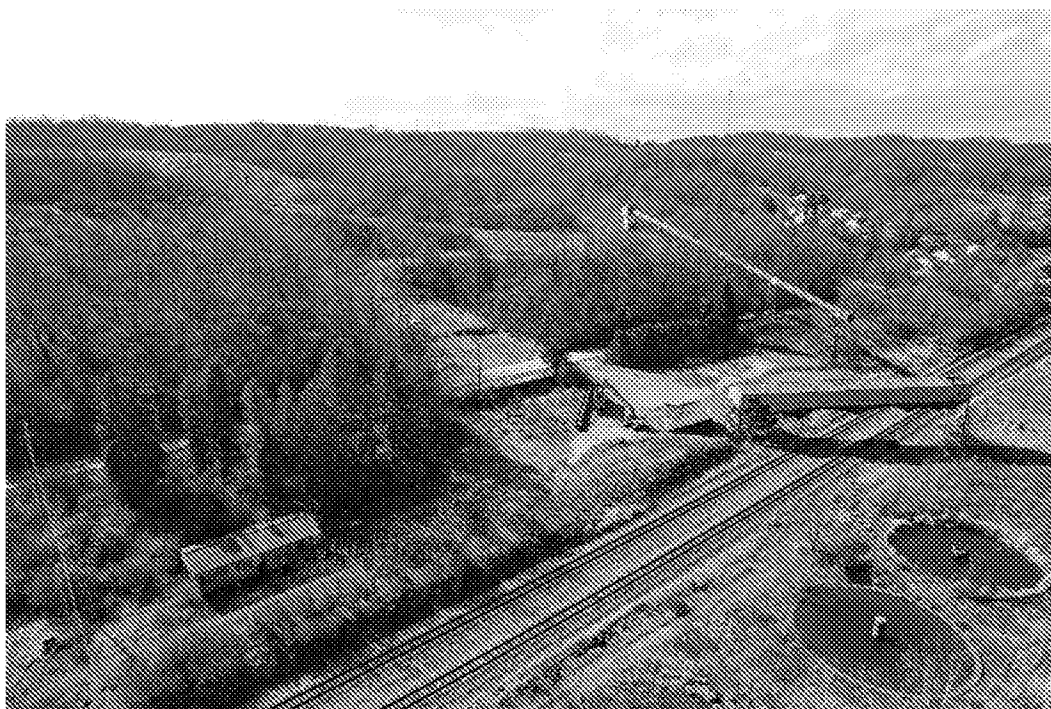
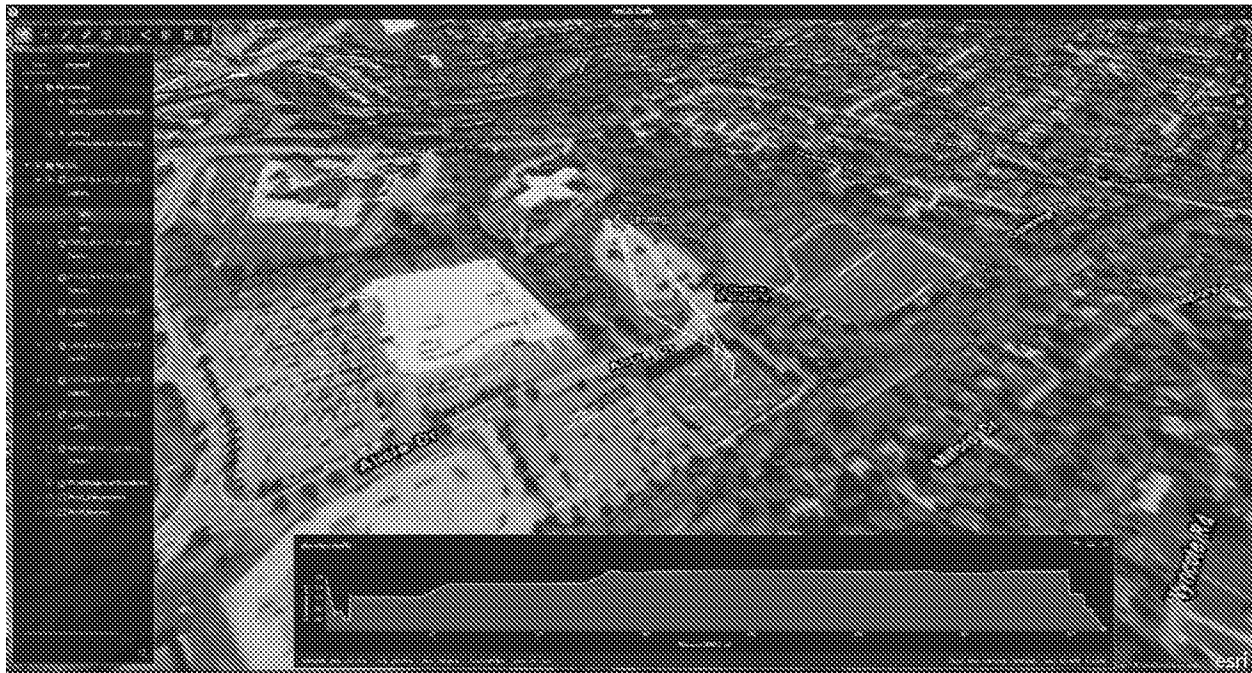


Figure 22: Image DJI_00020.JPEG (Item 69)



Category	Minimum Value	Maximum Value
Total Flight Log Time	-	346 sec (5 min, 46 sec)
Actual Flight Time (motors on)	-	284 sec (4 min, 44.9 sec)
Altitude (mean sea level)	358.008 m	381 m
Altitude (relative)	-1.7 m	22.6 m
Satellites Acquired	17	23
Distance Travelled (aircraft calculated)	-	439 m
Battery Voltage	9.973 V	10.86 V
Battery Temperature	N/A	N/A

Figure 23. Flight FLY009 Information (Item 69)

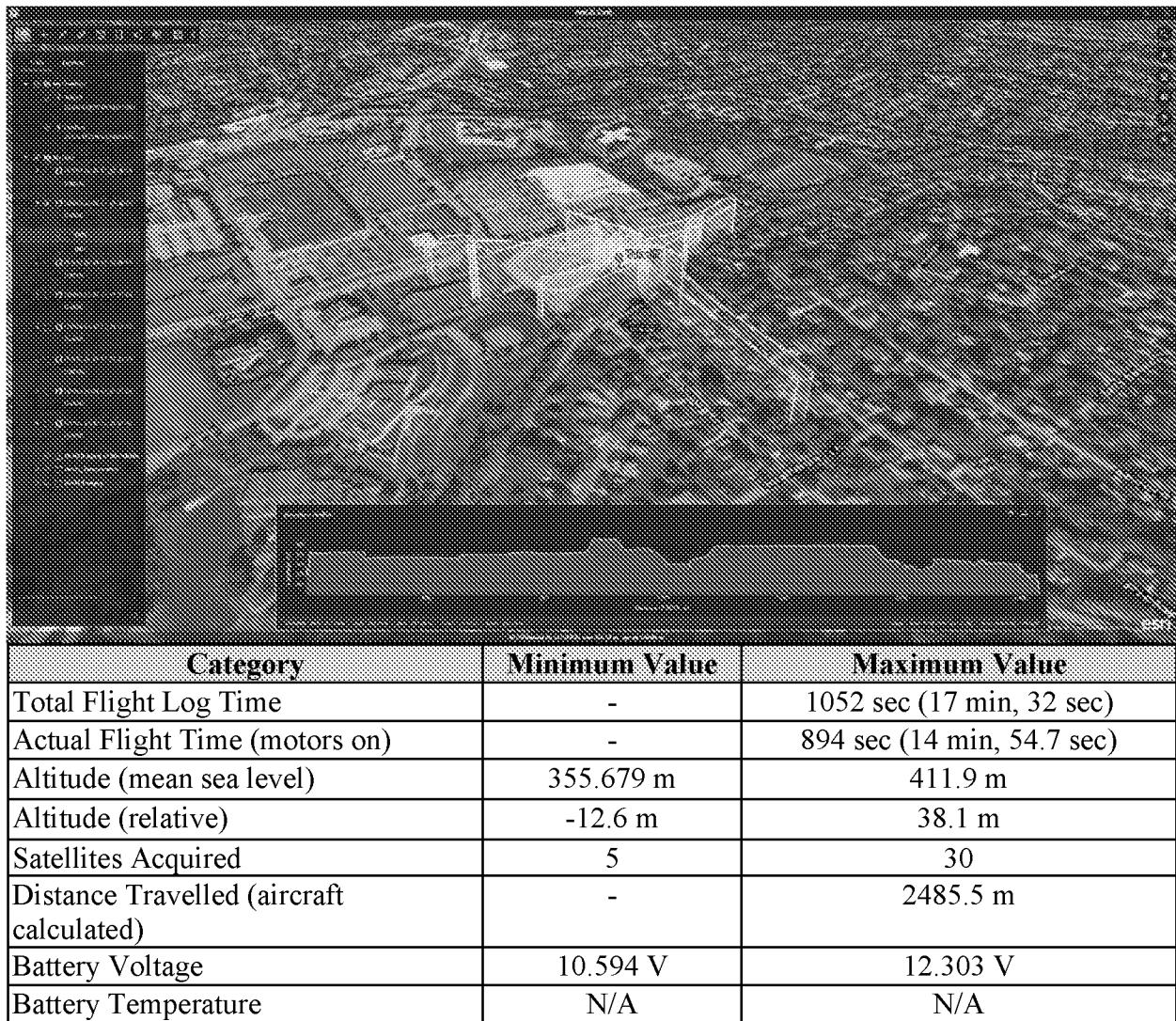


Figure 24. Flight FLY010 Information (Item 69)

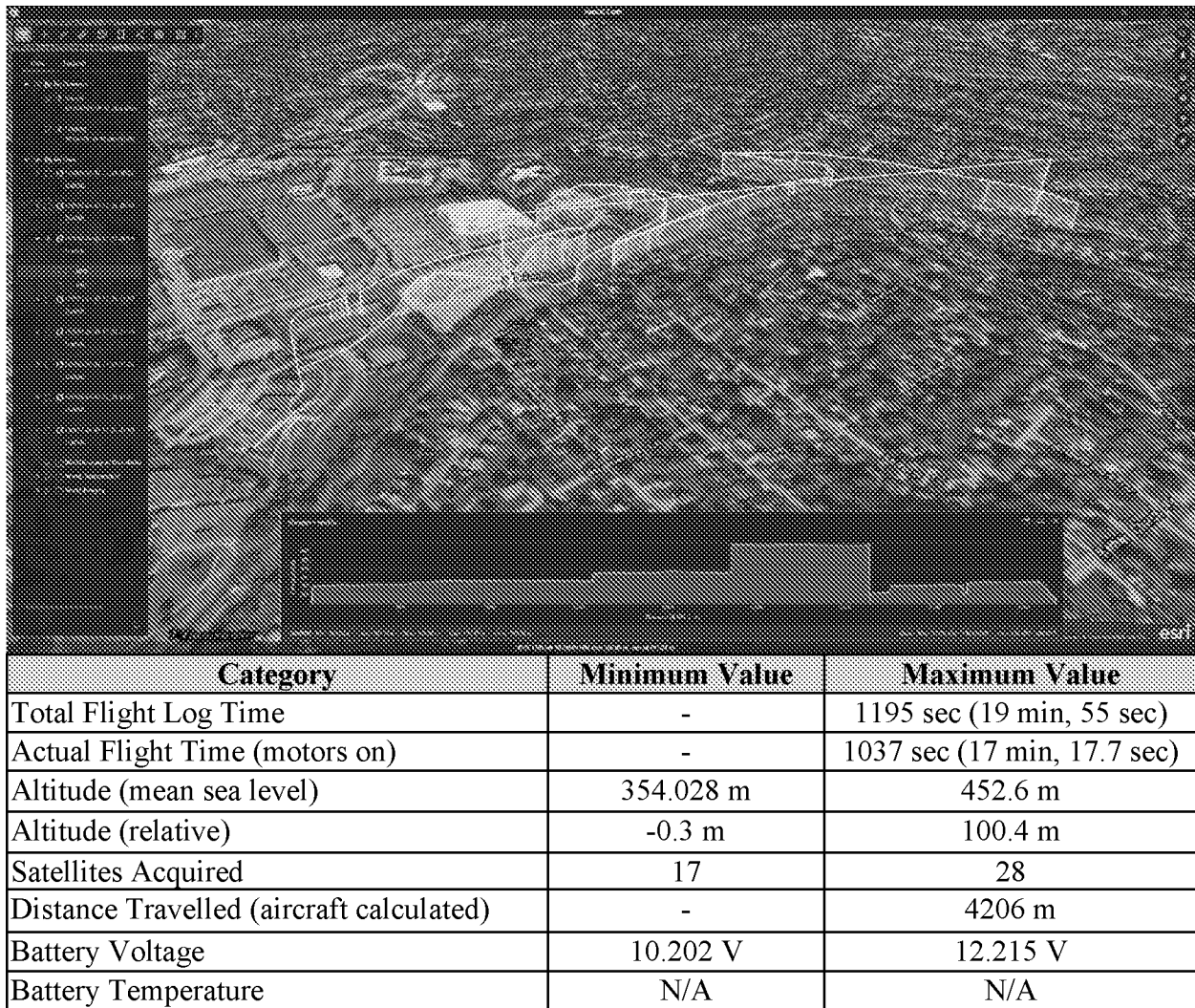


Figure 25. Flight FLY012 Information (Item 69)

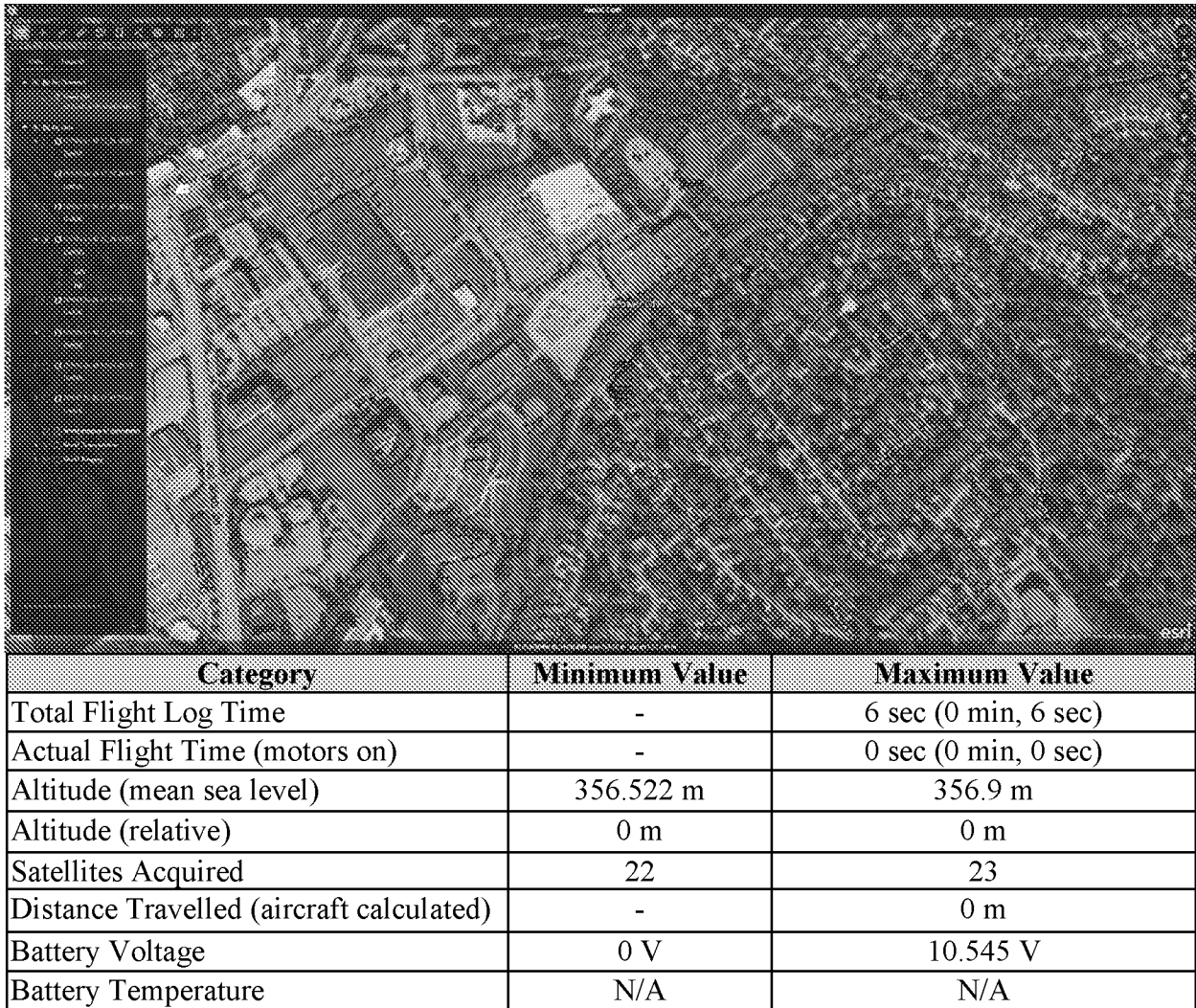


Figure 26. Flight FLY013 Information (Item 69)

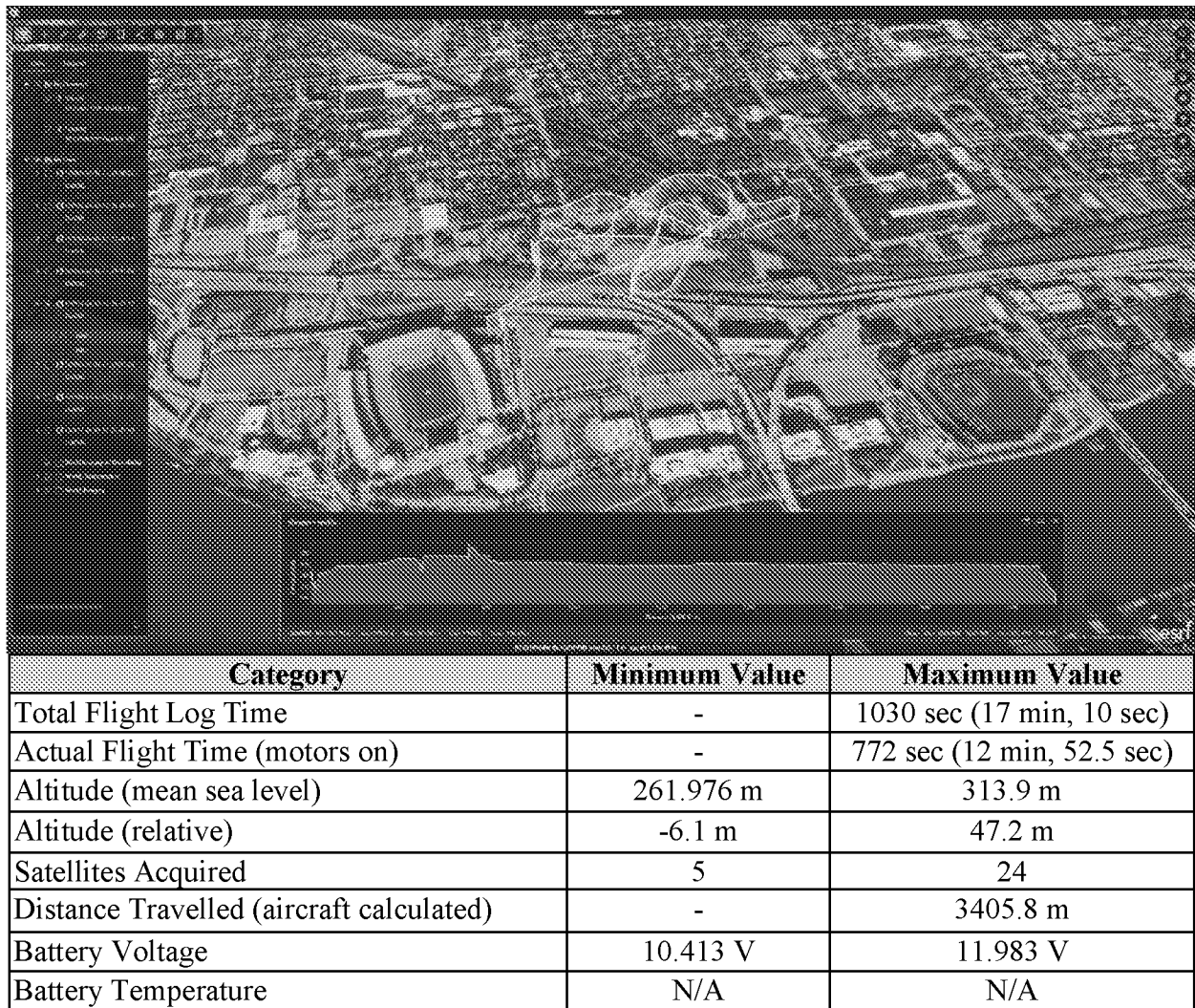


Figure 27. Flight FLY014 Information (Item 69)

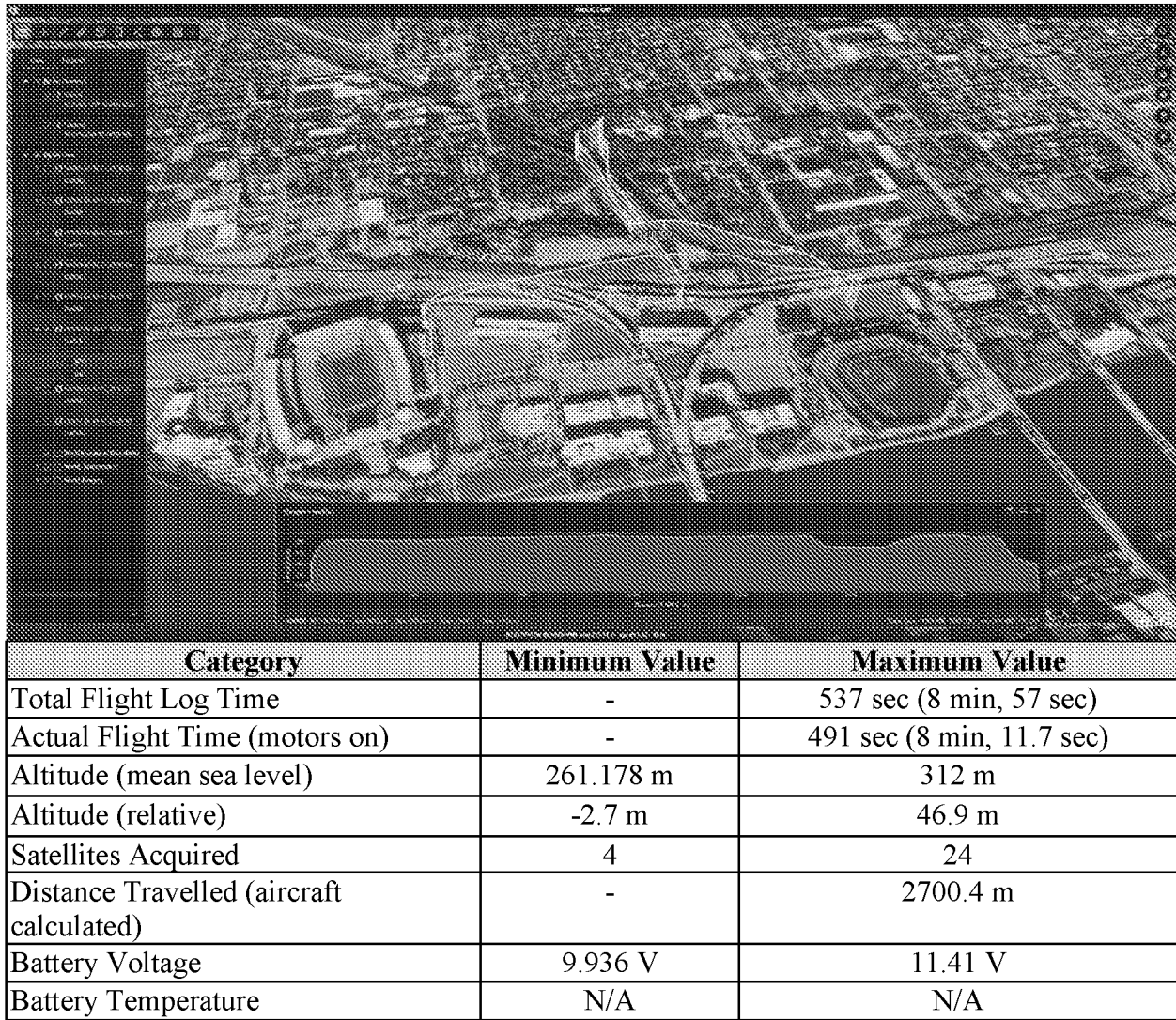


Figure 28. Flight FLY015 Information (Item 69)

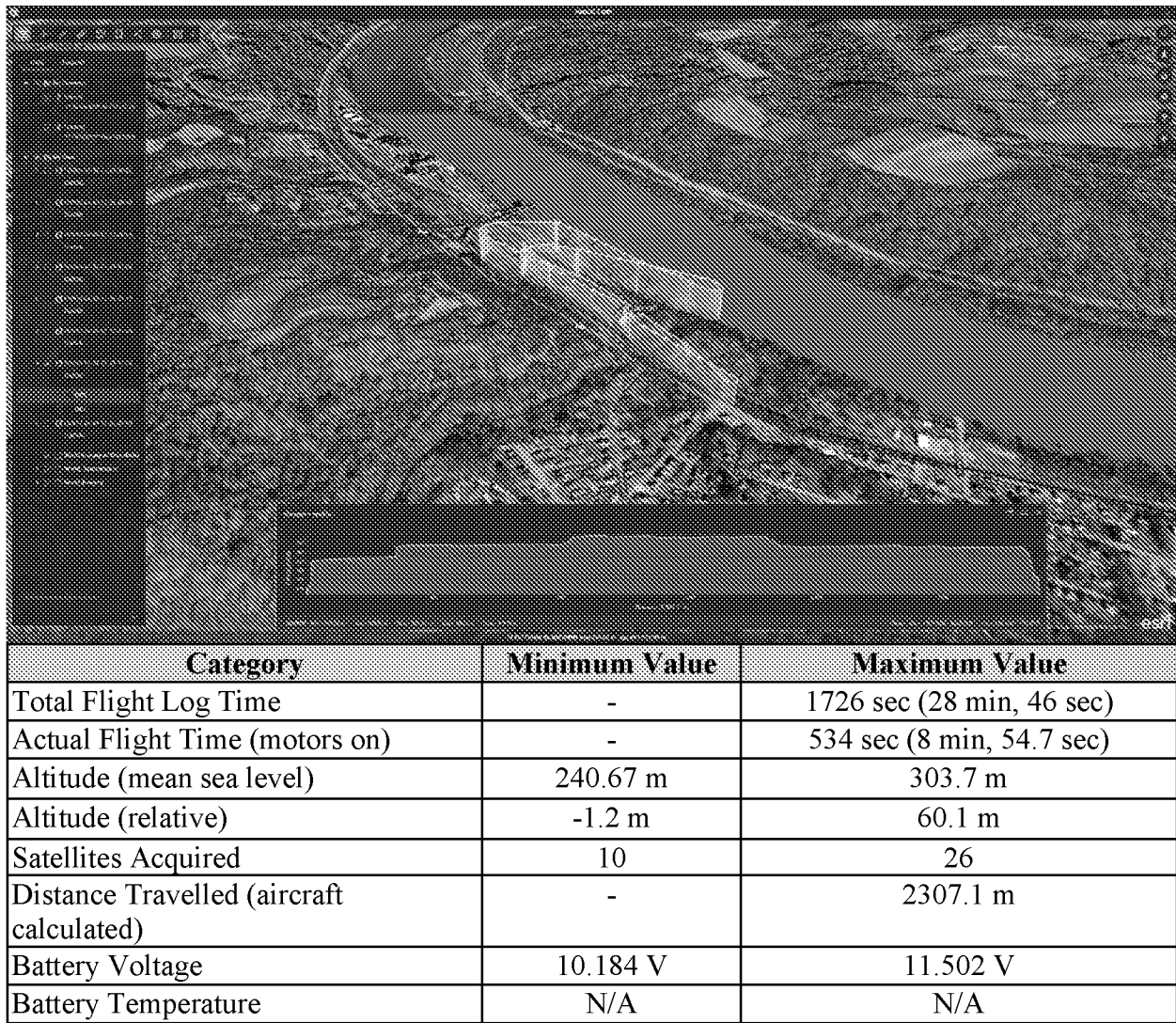


Figure 29. Flight FLY016 Information (Item 69)

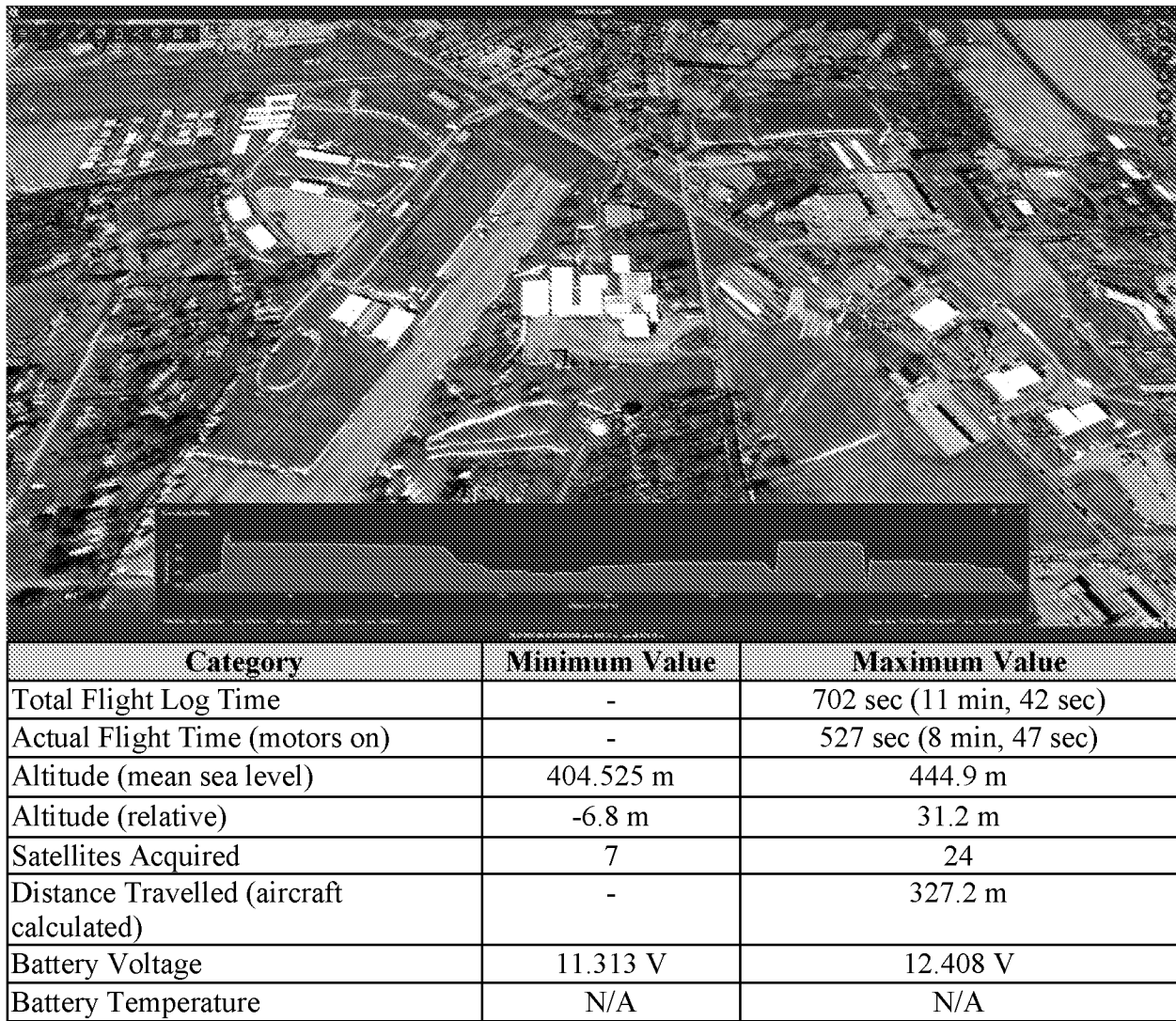


Figure 30. Flight FLY017 Information (Item 69)

Limitations:

Item source identifications that refer to a specific distributor or manufacturer have not been confirmed with that distributor or manufacturer unless otherwise stated in this report.

The physical characteristics, such as, but not limited to, material type, shape, and color of all evidentiary items described in the Results of Examination section of this report are based on visual observations unless otherwise noted. Other parameters such as, but not limited to, distances, angles, voltages, current and power associated with individual evidentiary items described in the Results of Examination section of this report are based on physical measurements and are rounded to two decimal places or three significant figures, unless otherwise noted. Diagrams such as, but not limited to, drawings and schematics are not to scale, unless otherwise noted.

Information recovered from digital memory is dependent on the tools and/or methods used to extract and parse the data.

Remarks:

For questions about the content of this report, please contact Forensic Examiner [REDACTED] at [REDACTED] or [REDACTED]

For questions about the status of your submission, including any remaining forensic examinations, please contact [REDACTED] at [REDACTED]

b6 -1
b7C -1
b7E -2,3

The evidence, which includes secondary evidence, will be returned to the [REDACTED]
[REDACTED]

This report contains the opinions and interpretations of the issuing examiner(s) and is supported by records retained in the FBI Laboratory files. [REDACTED]
[REDACTED]
[REDACTED]

The work described in this report was conducted at the Huntsville Laboratory.

b6 -1
b7C -1
b7E -2,4

	<u>Examination Notes</u>	
	FBI Case ID: PG-3947335	Exam Start Date: 7/17/2024
	Lab Number: 2024-01571-12	Exam Complete Date: 7/17/2024
	Number: N/A	Examiner/Analyst Name:
		

b6 -1
b7C -1
b7E -2

7/17/2024 CS, Container I and Container J

Inventoried and took images of items from containers I and J.

Container I Items

1. Item 59 - Controller

Container J Items

1. Packaging D10 – Paper Bag
2. Item 68 – Case
- 3. Item 69 – Drone**
- 4. Item 69-1 – Battery from Drone**
5. Item 70 – Drone Accessories
6. Item 70-1 – Foam pieces from drone accessories
- 7. Item 70-2 – Battery from drone accessories**
- 8. Item 70-3 – Battery from drone accessories**
9. Item 70-4 – Box from drone accessories
10. Item 70-5 – Adapter from drone accessories
11. Item 70-6 – Silica gel pack from drone accessories
12. Item 70-7 – Silica gel pack from drone accessories

For this case record, only Items 69, 69-1, 70-2, and 70-3 will be examined.

Limitations Statement: The physical characteristics, such as, but not limited to, material type, shape, and color of all evidentiary items described in these examination notes are based on visual and/or other observations, unless otherwise noted. Measurements of parameters such as, but not limited to, distances, angles, and voltages are approximate, unless otherwise noted. Diagrams such as, but not limited to, drawings and schematics are not to scale, unless otherwise noted.

Examiners Initials: Date: 07/17/2024 Lab #: 2024-01571-17

b6 -1
b7C -1

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Legal Authority

N/A

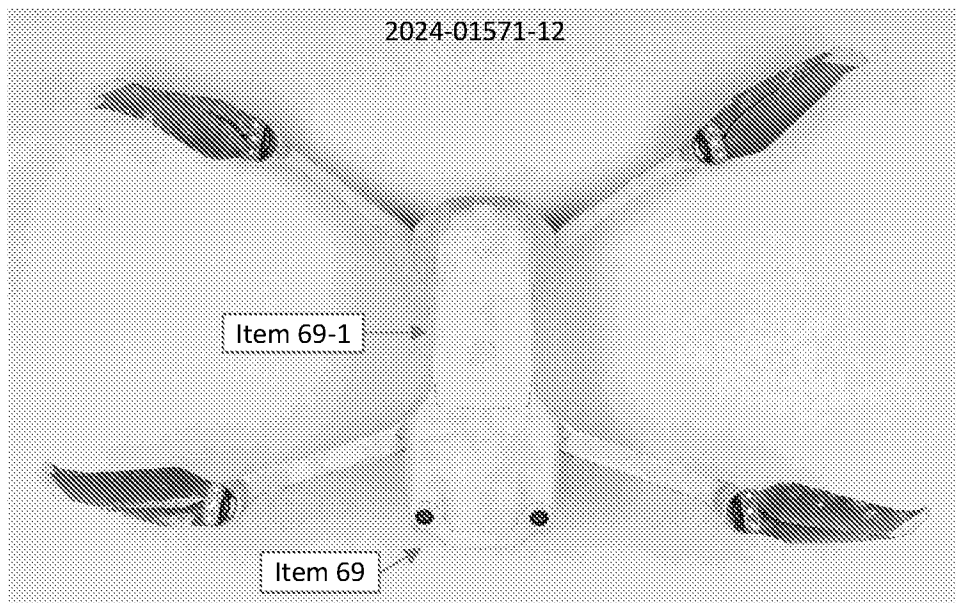
Physical Description

Item 69 is an unmodified DJI Air 2S drone. As received the item did not have a Micro SD installed.

Item 69-1 is the battery that is installed in Item 69.

Item 70-2 is a battery that is part of the drone accessories.

Item 70-3 is a battery that is part of the drone accessories.

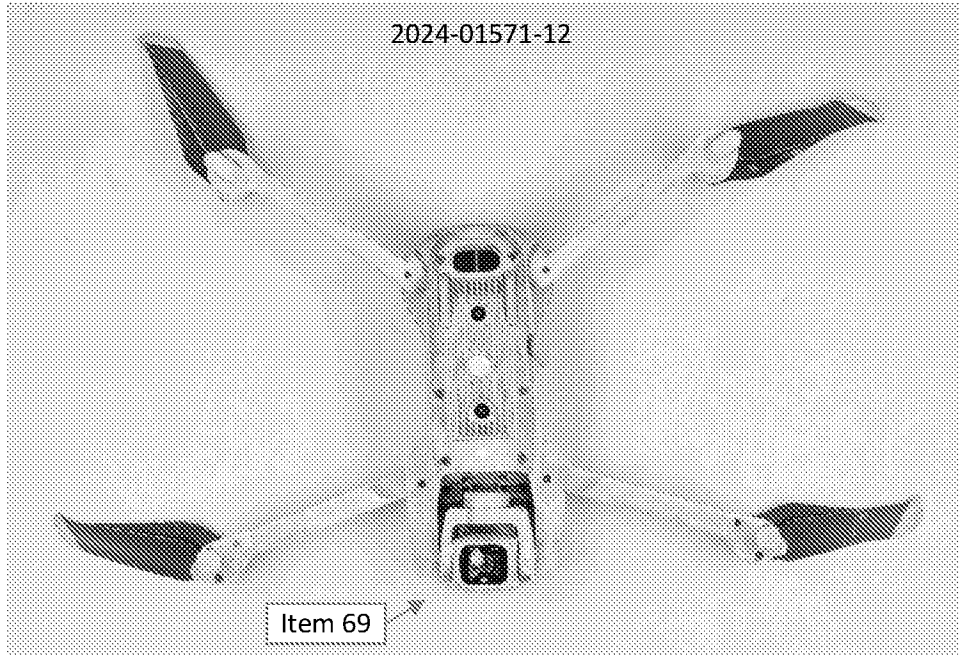


Item 59: DJI RC PRO Remote, Front and Back

Examiners Initials: Date: 07/17/2024 Lab #: 2024-01571-17

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b7C -1

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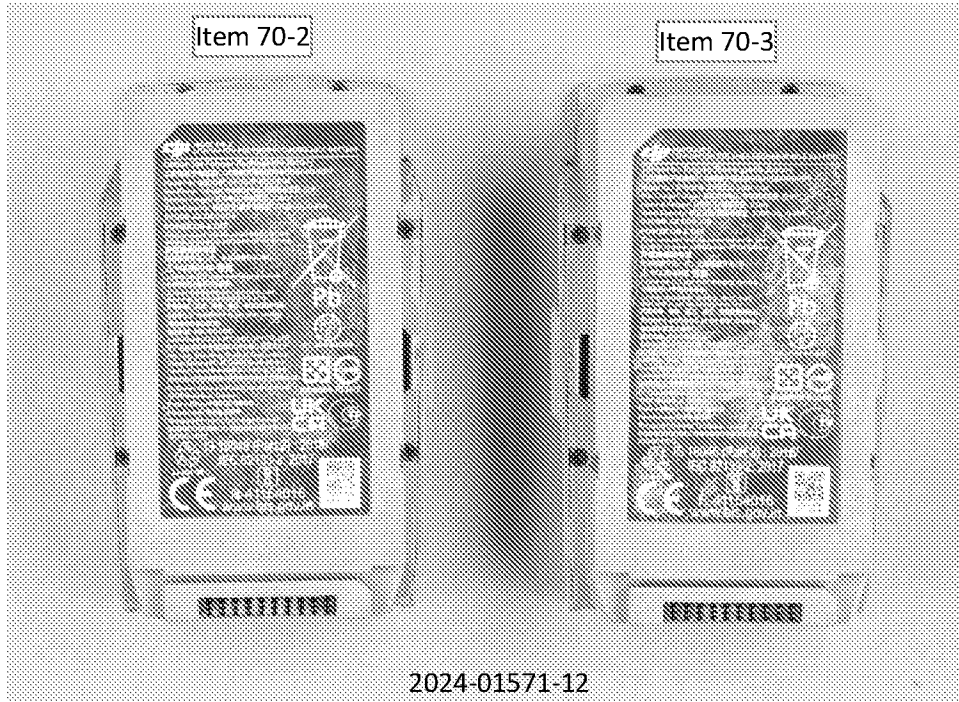
Item 69 and Item 69-1: DJI Air 2S and Battery Labels

Examiners Initials: Date: 07/17/2024 Lab #: 2024-01571-17

b6 -1
b7C -1

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Item 69, DJI Air 2S Summary

Manufacturer	SZ DJI (Da-Jiang Innovations) Technology Co., LTD
Version/Model	DJI AIR 2S DA2SUE1
Flight Log Range	FL Y009.DAT – FLY010.DAT FL Y012.DAT – FLY017.DAT (8 flight logs)
Total Images (Factory, User, and Thumbnail images)	202
User Images	40 (20 High Quality and 20 Low Quality Duplicates)
Videos	No Videos Recovered

Examiners Initials: Date: 07/17/2024 Lab #: 2024-01571-17

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Item 69, DJI Air 2S UAV Physical Description

Manufacturer	SZ DJI (Da-Jiang Innovations) Technology Co., LTD
UAV Version	DJI AIR 2S
UAV Model	DA2SUE1
S/N	3YTBJB00304Q8
CMIIT ID	2020AP13784
Color	Gray
Dimensions	180 x 97 x 77 mm (folded) (Comment) 183 x 253 x 77 mm (unfolded) (Comment)
Dimensions, diagonal length	302 mm (Comment)
Weight	1.31 lbs (595 g) (Comment)
Manufacturer Markings	Label
Handwritten Markings	None
Modifications	None
Comment: Physical information based on manufacturer specifications. ☐ did not measure Item 69.	

b7E -2

Item 69-1, DJI Air 2S UAV Battery Physical Description

(Table is U// FOUO)	
Manufacturer	SZ DJI (Da-Jiang Innovations) Technology Co., LTD
Version	Lithium-Ion Polymer Rechargeable Battery
Model	BWX232-3750-11.04
Color	Gray
S/N	57ZPJB8EA1008F
Max Charge Voltage	12.6V
Nominal Voltage	11.04V
Rated Capacity	3750mAh, 41.4Wh
Manufacturer Markings	Label
Handwritten Markings	None
Modifications	None
Comment: Physical information based on manufacturer specifications.	

Examiners Initials: ☐ Date: 07/17/2024 Lab #: 2024-01571-17b6 -1
b7C -1

UNCLASSIFIED

Item 70-2, DJI Air 2S UAV Battery Physical Description

(Table is U// FOUO)	
Manufacturer	SZ DJI (Da-Jiang Innovations) Technology Co., LTD
Version	Lithium-Ion Polymer Rechargeable Battery
Model	BWX232-3750-11.04
Color	Gray
S/N	57ZPJB9EA103J4
Max Charge Voltage	12.6V
Nominal Voltage	11.04V
Rated Capacity	3750mAh, 41.4Wh
Manufacturer Markings	Label
Handwritten Markings	None
Modifications	None
Comment: Physical information based on manufacturer specifications.	

Item 70-3, DJI Air 2S UAV Battery Physical Description

(Table is U// FOUO)	
Manufacturer	SZ DJI (Da-Jiang Innovations) Technology Co., LTD
Version	Lithium-Ion Polymer Rechargeable Battery
Model	BWX232-3750-11.04
Color	Gray
S/N	57ZPJB8EA100NP
Max Charge Voltage	12.6V
Nominal Voltage	11.04V
Rated Capacity	3750mAh, 41.4Wh
Manufacturer Markings	Label
Handwritten Markings	None
Modifications	None
Comment: Physical information based on manufacturer specifications.	

Examiners Initials: Date: 07/17/2024 Lab #: 2024-01571-17

b6 -1
b7C -1

Test Plan for Item 69

Test Methodologies:

- Electronic Data Recovery

(U) Tests Performed in Each Procedure:

(U) Electronic Data Recovery:

- Create secondary evidence for data extraction storage.
- Disassemble drone to locate eMMC.
- Perform In-System-Programming (ISP) of eMMC chip with JTAG box to extract binary file without applying power to the item.
 - a. An exemplar drone will be used to identify ISP data points.
 - b. Another exemplar drone will be used to validate ISP data points.
- Analyze contents of binary file using FTK Imager.

Electronic Data Recovery

Secondary evidence was created (Item 76). Item 76 is a Samsung SSD (Model MU-PE2T0S) that was forensically wiped and formatted on July 11, 2024. Wipe and Format Logs are included in secondary evidence. An exemplar was chipped-off and ISP points were successfully located.

Deviation from Test Plan

Due to HQ's request for immediate data from Item 69, a secondary exemplar was not used to verify data extraction using identified ISP points from the first exemplar.

A minor deviation from [REDACTED]

[REDACTED]

[REDACTED] was requested and approved by EE FE [REDACTED] on 7/17/2024 per requirements found in [REDACTED]

Electronic Data Recovery Results

[REDACTED] 7/17/2024

Drone was disassembled to expose the circuit board that contained the Electronic Multimedia Card (eMMC).

Examiners Initials: [REDACTED] Date: 07/17/2024 Lab #: 2024-01571-17

UNCLASSIFIED

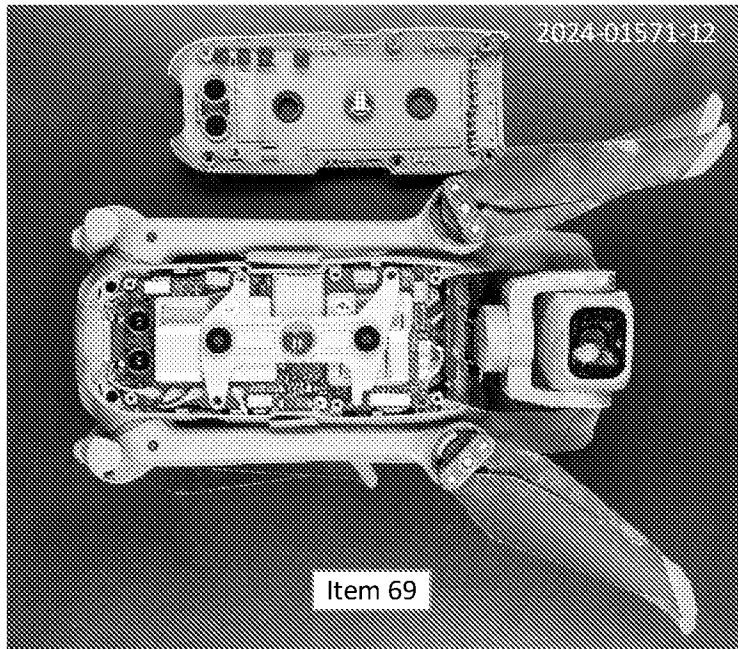
b6 -1
b7C -1
b7E -2,27

b6 -1
b7C -1

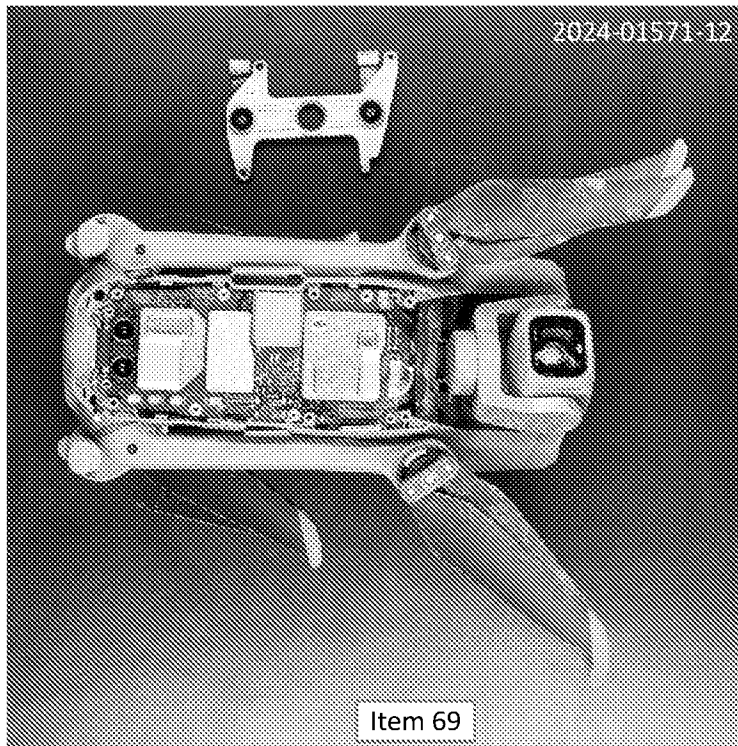
b6 -1
b7C -1

☐ 7/17/2024

b6 -1
b7C -1



Item 69. Back cover removed.



Examiners Initials: ☐ Date: 07/17/2024 Lab #: 2024-01571-17

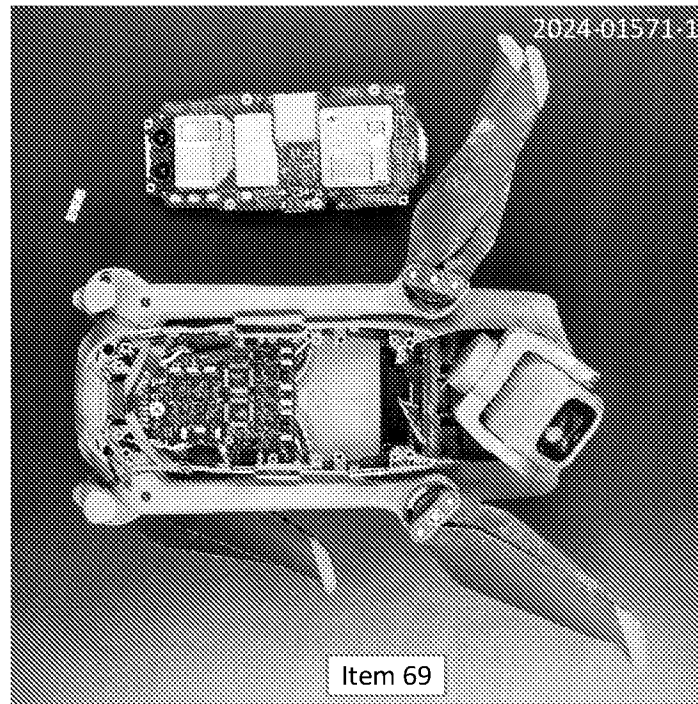
b6 -1
b7C -1

UNCLASSIFIED

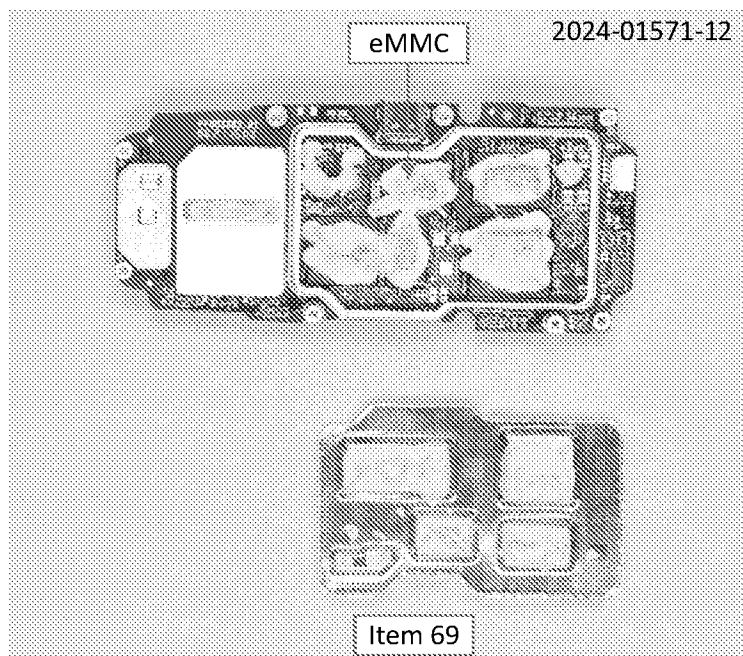
☐ 7/17/2024

b6 -1
b7C -1

Item 69. Heatsink Removal



Item 69. Circuit Board removal



Examiners Initials: ☐ Date: 07/17/2024 Lab #: 2024-01571-17

b6 -1
b7C -1

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UNCLASSIFIED

7/17/2024

b6 -1
b7C -1

Item 69. eMMC location

An approximately 16GB Binary file was successfully extracted from Item 69 utilizing the ISP data points that were identified using exemplar drone.



EDR JTAG Extraction Screenshot

Generated Logs

DJI_AIR_2S_eMMC_JTAG_Logs.txt

Binary File MD5 Checksum

MD5 checksum of "E:\DJI_Air_2S\AIR_2S_EMMC_ROM1_AJTD4R.bin":

9f 5d 25 18 26 1f 69 a0 1b 04 8a 38 f4 cd 93 07

FTK Imager

Binary file was parsed using FTK imager.

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Parsing Results:

Item 69. Attributable Extracted Data

Device ID	3YTBJB00304Q8
Board ID	3XRBJAR10200Z1
DJI Build Version	10.10.39.20
UUID	d4e85555 ac370114 11
ADS-B Firmware Version	0.3.15
Number of times powered on	15

Item 69. DJI Air 2S Flight Logs

Flight	Latitude	Longitude	GPS Date
FLY009	40.3481094	-80.0455039	2024-02-06 14:12:28Z
FLY010	40.3452184	-80.0461485	2024-02-13 18:37:53Z
FLY012	40.3452675	-80.0461524	2024-02-13 18:55:01Z
FLY013	40.3453015	-80.0461364	2024-02-13 19:15:11Z
FLY014	40.4498213	-80.0104777	2024-02-20 15:51:31Z
FLY015	40.4497462	-80.0104912	2024-02-27 18:11:24Z
FLY016	40.2141753	-79.9618437	2024-02-27 19:17:16Z
FLY017	40.8606783	-79.9703431	2024-07-13 19:51:46Z

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Item 69. Flight FLY009

Category	Minimum Value	Maximum Value
Total Flight Log Time	-	346 sec (5 min, 46 sec)
Actual Flight Time (motors on)	-	284 sec (4 min, 44.9 sec)
Altitude (mean sea level)	358.008 m	381 m
Altitude (relative)	-1.7 m	22.6 m
Satellites Acquired	17	23
Distance Travelled (aircraft calculated)	-	439 m
Battery Voltage	9.973 V	10.86 V
Battery Temperature	N/A	N/A

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Item 69. Flight FLY010

Category	Minimum Value	Maximum Value
Total Flight Log Time	-	1052 sec (17 min, 32 sec)
Actual Flight Time (motors on)	-	894 sec (14 min, 54.7 sec)
Altitude (mean sea level)	355.679 m	411.9 m
Altitude (relative)	-12.6 m	38.1 m
Satellites Acquired	5	30
Distance Travelled (aircraft calculated)	-	2485.5 m
Battery Voltage	10.594 V	12.303 V
Battery Temperature	N/A	N/A

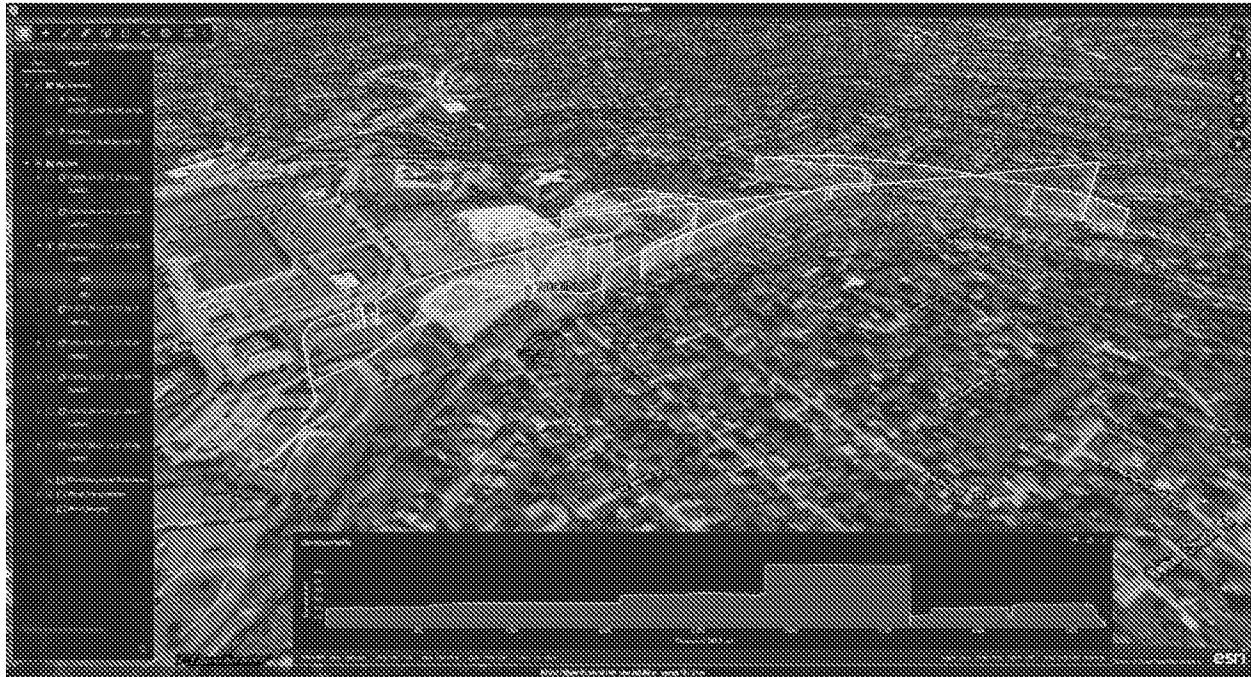
Examiners Initials: ☐ Date: 07/17/2024 Lab #: 2024-01571-17

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Item 69. Flight FLY012

Category	Minimum Value	Maximum Value
Total Flight Log Time	-	1195 sec (19 min, 55 sec)
Actual Flight Time (motors on)	-	1037 sec (17 min, 17.7 sec)
Altitude (mean sea level)	354.028 m	452.6 m
Altitude (relative)	-0.3 m	100.4 m
Satellites Acquired	17	28
Distance Travelled (aircraft calculated)	-	4206 m
Battery Voltage	10.202 V	12.215 V
Battery Temperature	N/A	N/A

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Item 69. Flight FLY013

Category	Minimum Value	Maximum Value
Total Flight Log Time	-	6 sec (0 min, 6 sec)
Actual Flight Time (motors on)	-	0 sec (0 min, 0 sec)
Altitude (mean sea level)	356,522 m	356.9 m
Altitude (relative)	0 m	0 m
Satellites Acquired	22	23
Distance Travelled (aircraft calculated)	-	0 m
Battery Voltage	0 V	10.545 V
Battery Temperature	N/A	N/A

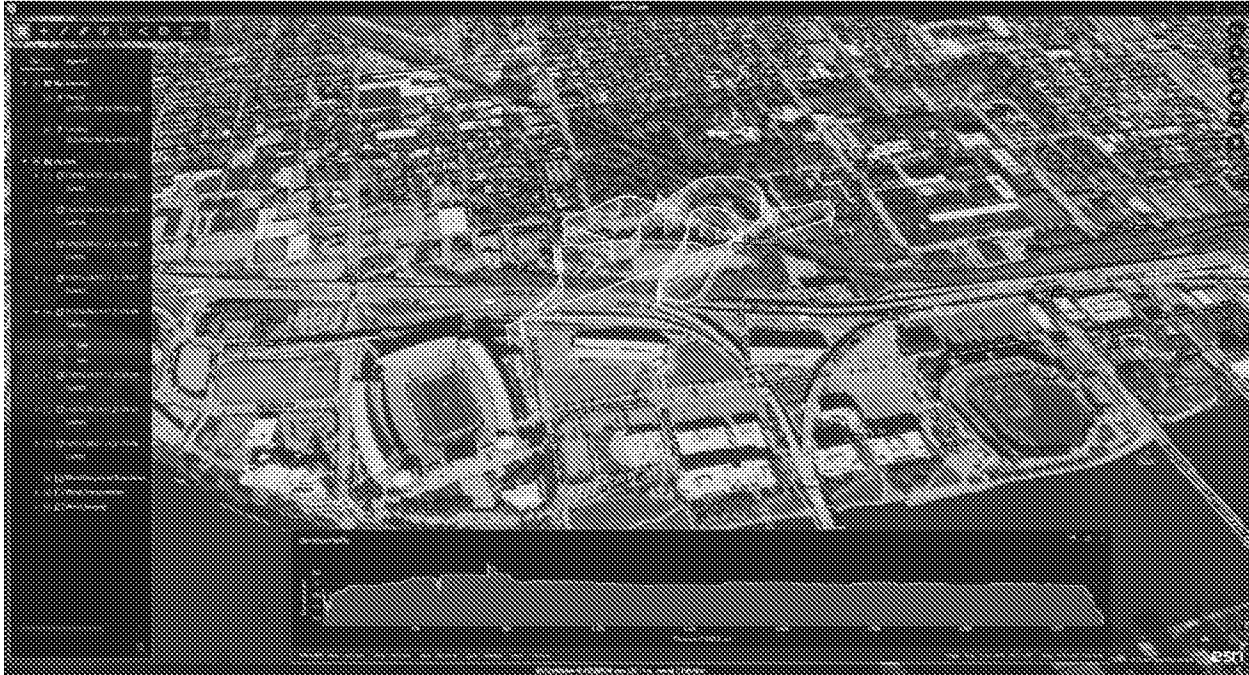
Examiners Initials: ☐ Date: 07/17/2024 Lab #: 2024-01571-17

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Item 69. Flight FLY014

Category	Minimum Value	Maximum Value
Total Flight Log Time	-	1030 sec (17 min, 10 sec)
Actual Flight Time (motors on)	-	772 sec (12 min, 52.5 sec)
Altitude (mean sea level)	261.976 m	313.9 m
Altitude (relative)	-6.1 m	47.2 m
Satellites Acquired	5	24
Distance Travelled (aircraft calculated)	-	3405.8 m
Battery Voltage	10.413 V	11.983 V
Battery Temperature	N/A	N/A

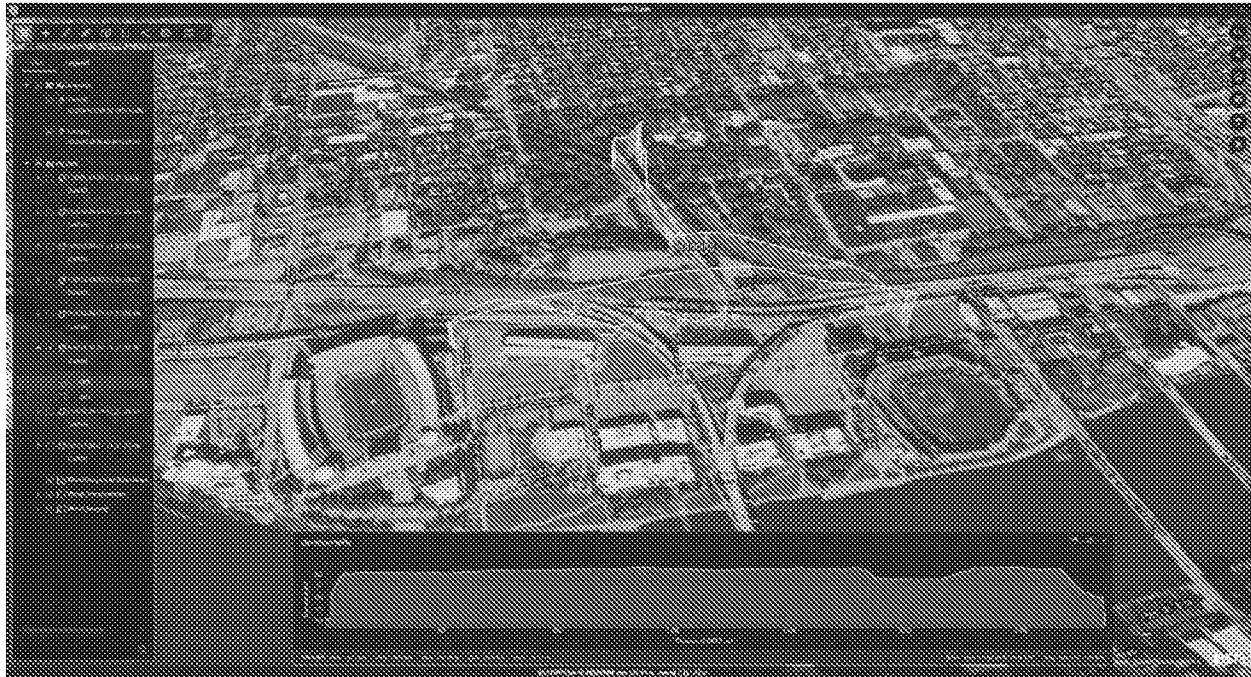
Examiners Initials: ☐ Date: 07/17/2024 Lab #: 2024-01571-17

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Item 69. Flight FLY015

Category	Minimum Value	Maximum Value
Total Flight Log Time	-	537 sec (8 min, 57 sec)
Actual Flight Time (motors on)	-	491 sec (8 min, 11.7 sec)
Altitude (mean sea level)	261.178 m	312 m
Altitude (relative)	-2.7 m	46.9 m
Satellites Acquired	4	24
Distance Travelled (aircraft calculated)	-	2700.4 m
Battery Voltage	9.936 V	11.41 V
Battery Temperature	N/A	N/A

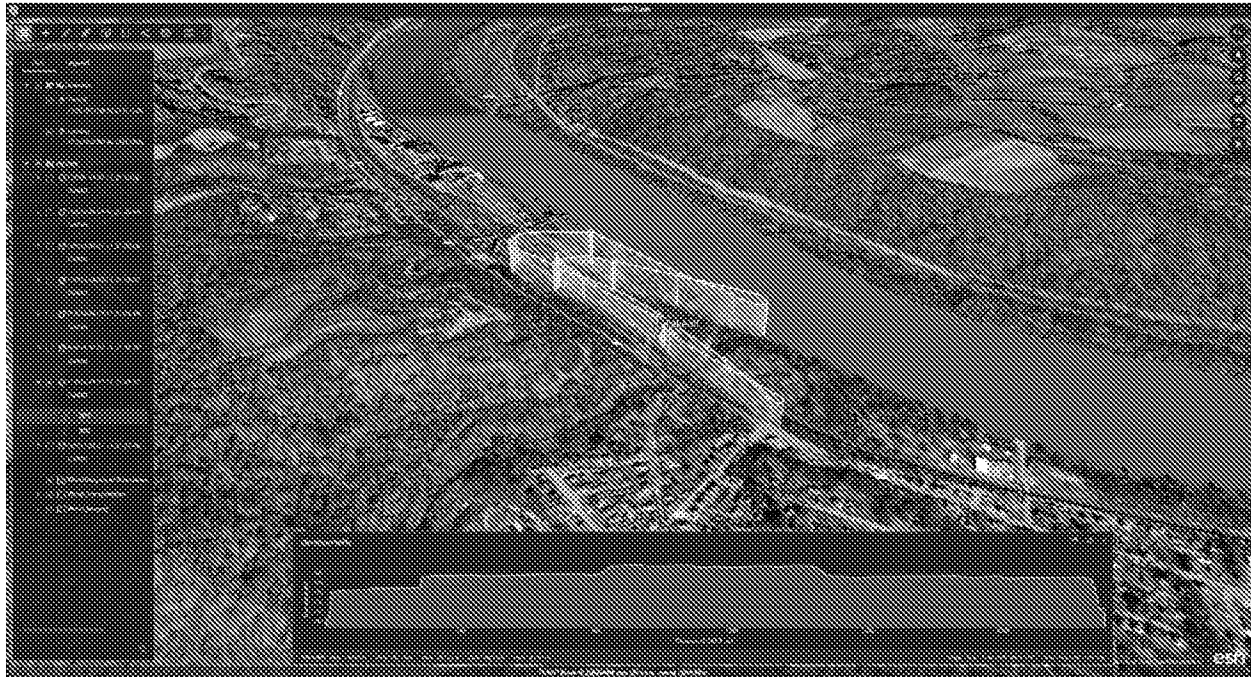
Examiners Initials: ☐ Date: 07/17/2024 Lab #: 2024-01571-17

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Item 69. Flight FLY016

Category	Minimum Value	Maximum Value
Total Flight Log Time	-	1726 sec (28 min, 46 sec)
Actual Flight Time (motors on)	-	534 sec (8 min, 54.7 sec)
Altitude (mean sea level)	240.67 m	303.7 m
Altitude (relative)	-1.2 m	60.1 m
Satellites Acquired	10	26
Distance Travelled (aircraft calculated)	-	2307.1 m
Battery Voltage	10.184 V	11.502 V
Battery Temperature	N/A	N/A

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Item 69. Flight FLY017

Category	Minimum Value	Maximum Value
Total Flight Log Time	-	702 sec (11 min, 42 sec)
Actual Flight Time (motors on)	-	527 sec (8 min, 47 sec)
Altitude (mean sea level)	404.525 m	444.9 m
Altitude (relative)	-6.8 m	31.2 m
Satellites Acquired	7	24
Distance Travelled (aircraft calculated)	-	327.2 m
Battery Voltage	11.313 V	12.408 V
Battery Temperature	N/A	N/A

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Item 69. DJI Air 2S Images

Image	Date	Time	Size	GPS Location (Lat, Long)
DJI_0001.JPG	02/06/2024	08:42 AM	8.4 MB	40.34786, -80.0452
DJI_0002.JPG	02/06/2024	08:52 AM	10.3 MB	40.34796, -80.04545
DJI_0003.JPG	02/13/2024	01:43 PM	8.1 MB	40.34454, -80.04792
DJI_0004.JPG	02/13/2024	01:47 PM	9.8 MB	40.34521, -80.04633
DJI_0005.JPG	02/13/2024	01:57 PM	7.8 MB	40.3474, -80.04426
DJI_0006.JPG	02/13/2024	01:58 PM	8.7 MB	40.34624, -80.04388
DJI_0007.JPG	02/20/2024	10:56 AM	7.4 MB	40.44887, -80.01192
DJI_0008.JPG	02/20/2024	10:56 AM	9.3 MB	40.44753, -80.01473
DJI_0009.JPG	02/20/2024	10:58 AM	9.4 MB	40.4491, -80.01402
DJI_0010.JPG	02/20/2024	11:04 AM	8.1 MB	40.44834, -80.01212
DJI_0011.JPG	02/27/2024	01:13 PM	8 MB	40.44823, -80.00661
DJI_0012.JPG	02/27/2024	01:13 PM	9.6 MB	40.44783, -80.00636
DJI_0013.JPG	02/27/2024	01:14 PM	9.9 MB	40.44742, -80.01445
DJI_0014.JPG	02/27/2024	01:17 PM	9.5 MB	40.45181, -80.01115
DJI_0015.JPG	02/27/2024	01:17 PM	9.6 MB	40.34796, -80.04545
DJI_0016.JPG	02/27/2024	02:18 PM	8.1MB	40.45251, -80.01122
DJI_0017.JPG	02/27/2024	02:19 PM	11 MB	40.21584, -79.96397
DJI_0018.JPG	02/27/2024	02:20 PM	8.2 MB	40.21557, -79.96273
DJI_0019.JPG	02/27/2024	02:21 PM	7.6 MB	40.21504, -79.96139
DJI_0020.JPG	02/27/2024	02:22 PM	8.3 MB	40.21642, -79.96387

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Item 69. Image DJI_0001.JPEG



Item 69. Image DJI_0002.JPEG

Examiners Initials: ☐ Date: 07/17/2024 Lab #: 2024-01571-17

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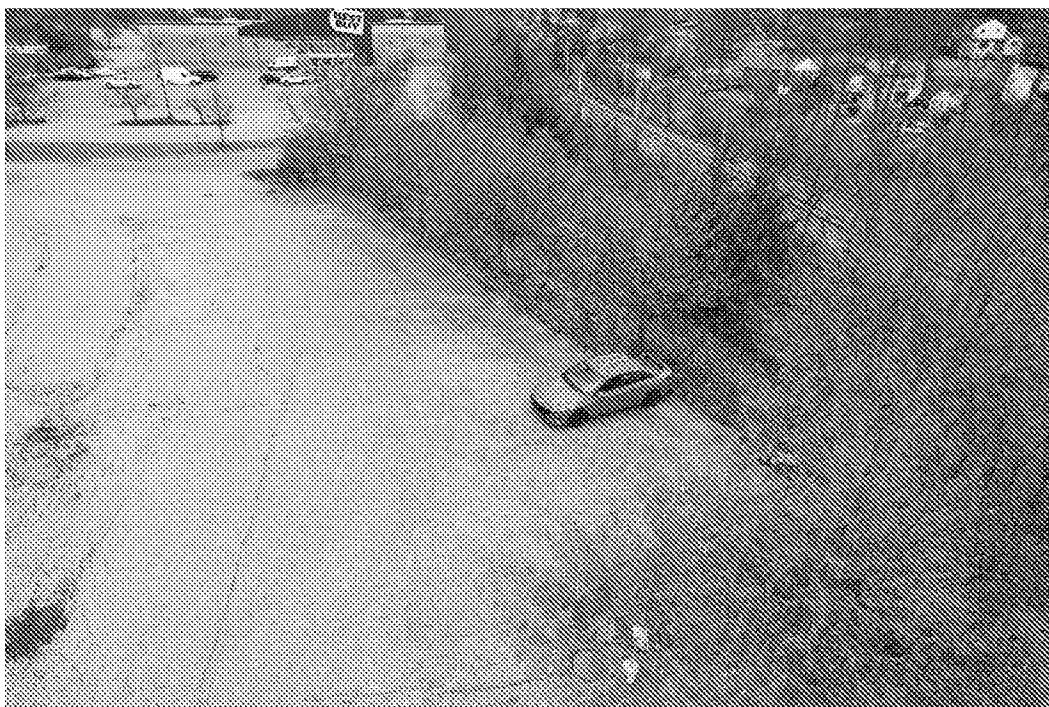
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Item 69. Image DJI_0003.JPEG



Item 69. Image DJI_0004.JPEG

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Item 69. Image DJI_0005.JPEG



Item 69. Image DJI_0006.JPEG

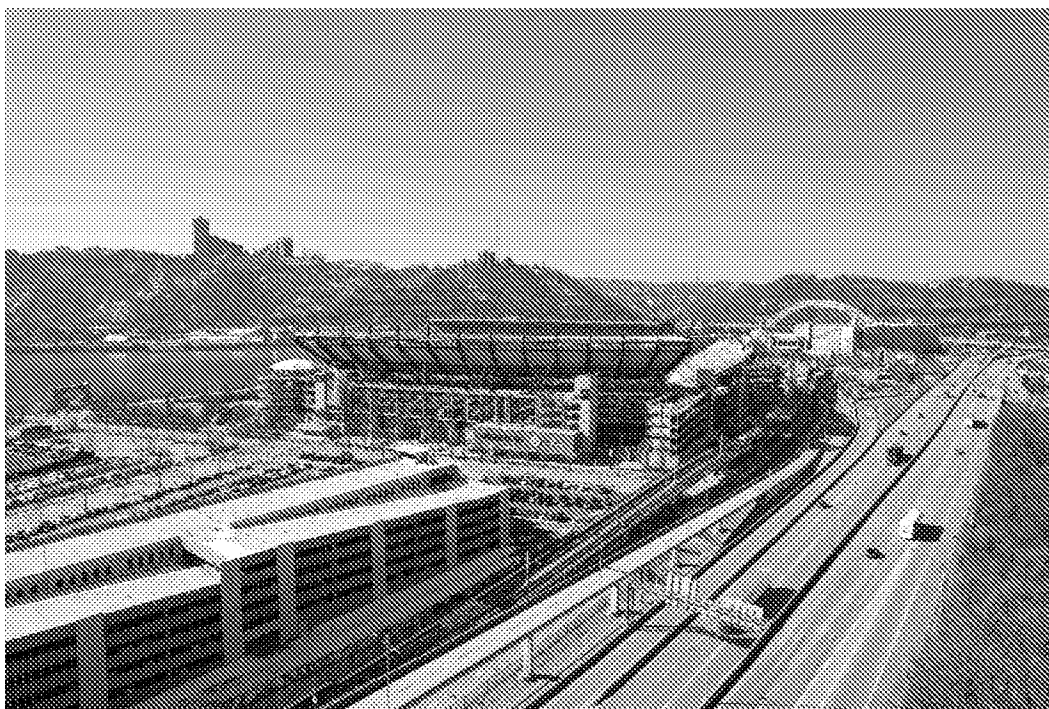
Examiners Initials: ☐ Date: 07/17/2024 Lab #: 2024-01571-17

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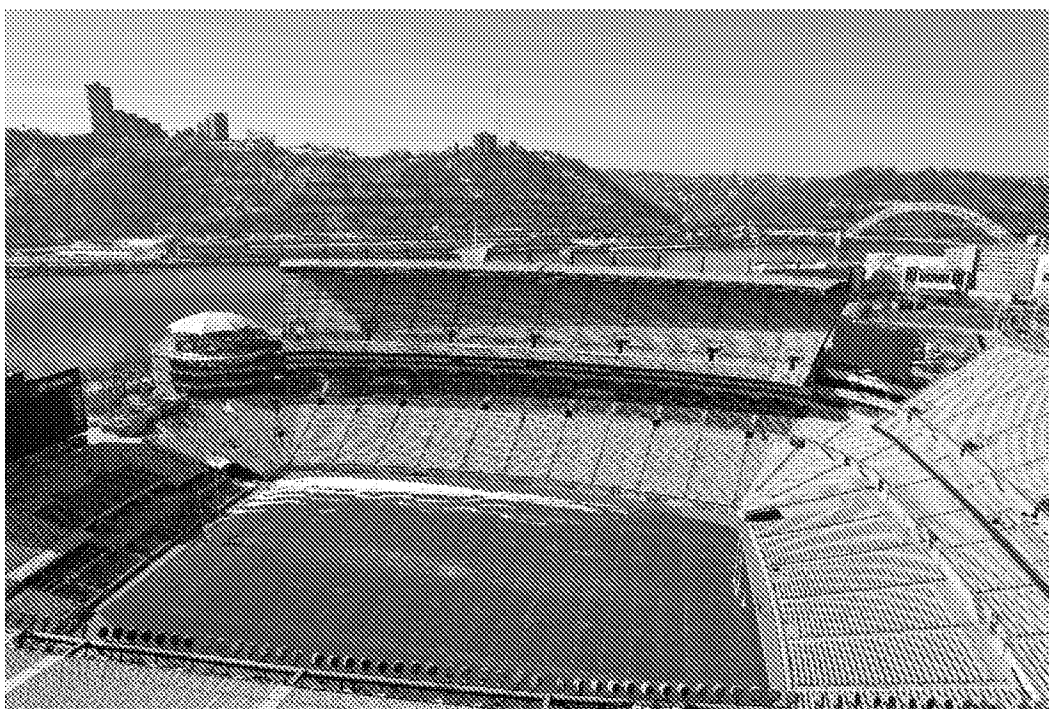
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Item 69. Image DJI_0007.JPEG



Item 69. Image DJI_0008.JPEG

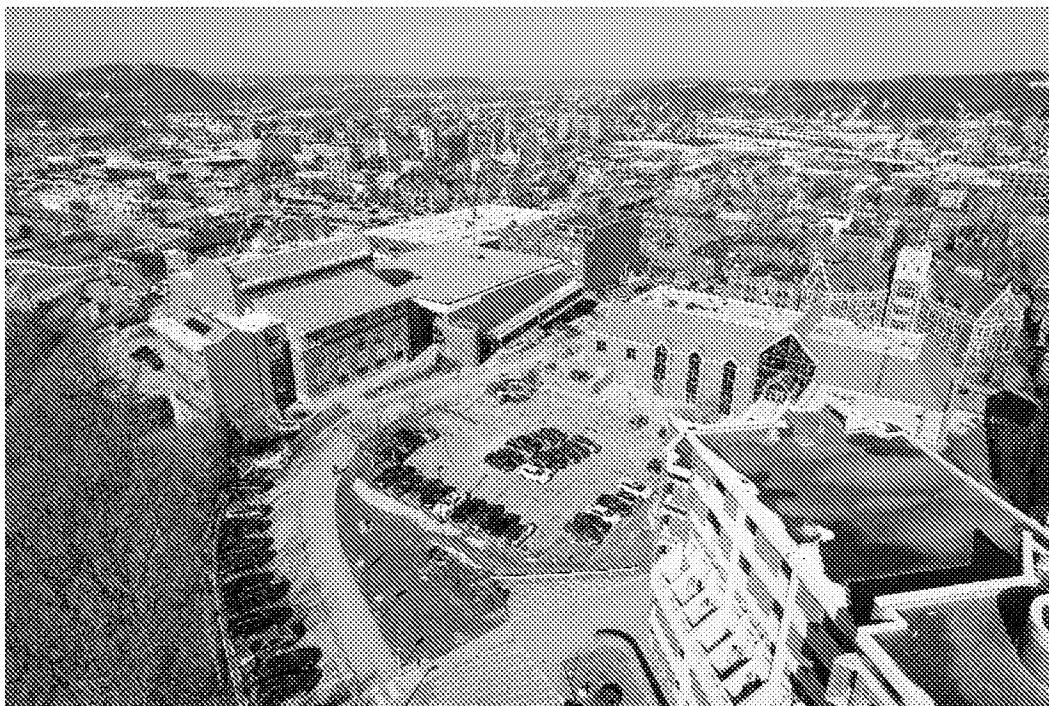
Examiners Initials: ☐ Date: 07/17/2024 Lab #: 2024-01571-17

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Item 69. Image DJI_0009.JPEG



Item 69. Image DJI_0010.JPEG

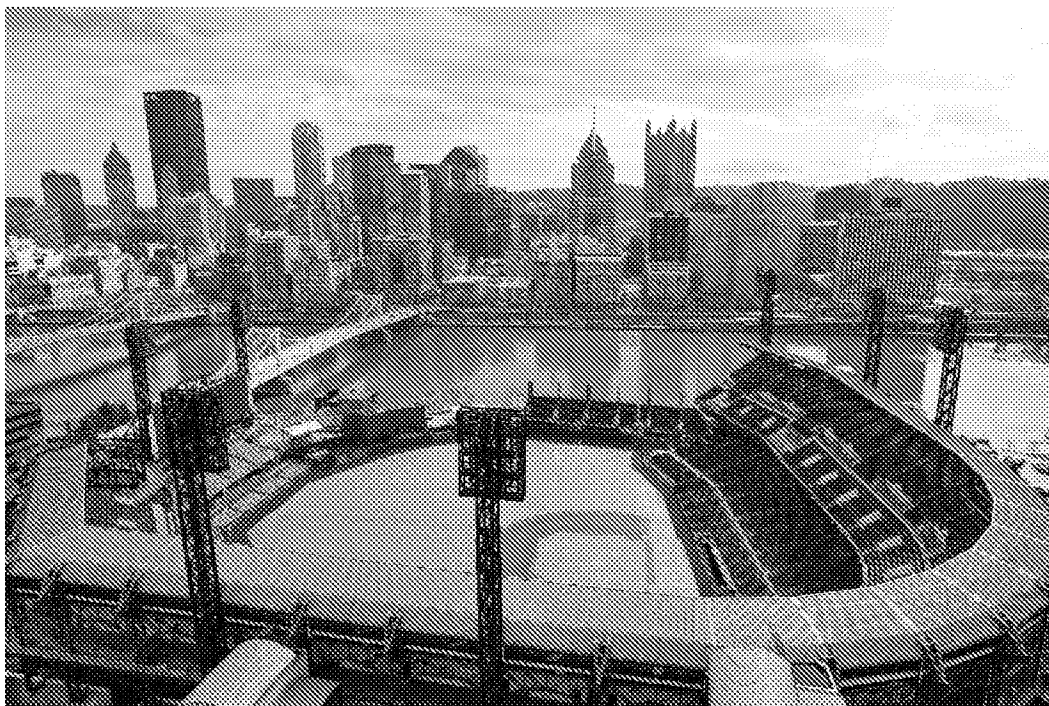
Examiners Initials: ☐ Date: 07/17/2024 Lab #: 2024-01571-17

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Item 69. Image DJI_0011.JPEG



Item 69. Image DJI_0012.JPEG

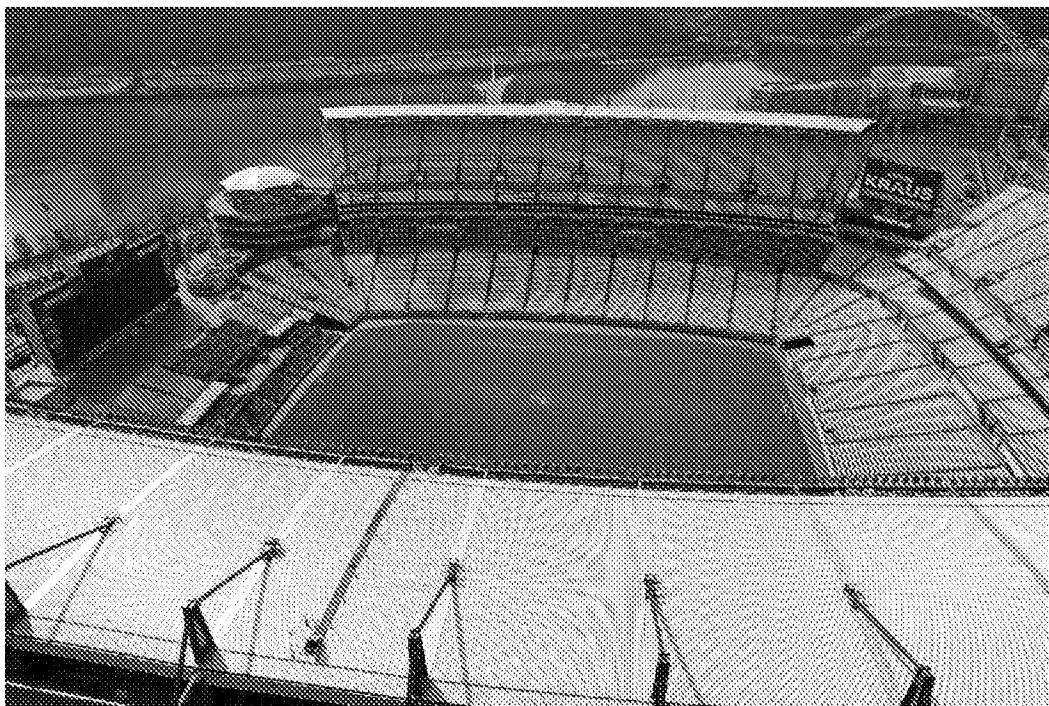
Examiners Initials: ☐ Date: 07/17/2024 Lab #: 2024-01571-17

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Item 69. Image DJI_0013.JPEG



Item 69. Image DJI_0014.JPEG

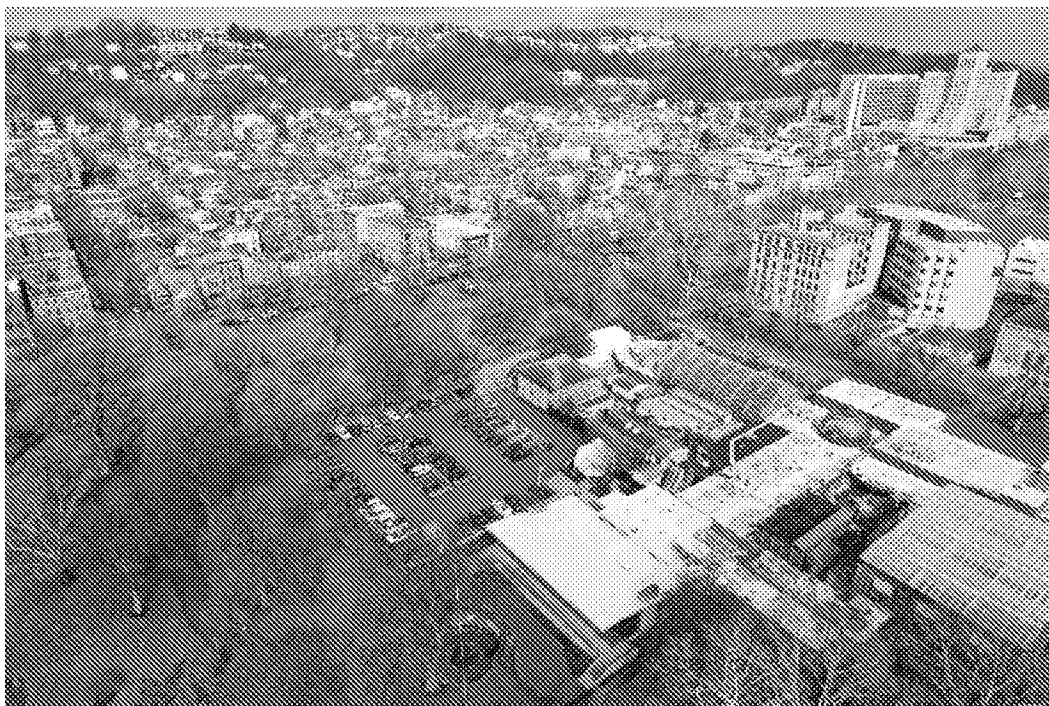
Examiners Initials: ☐ Date: 07/17/2024 Lab #: 2024-01571-17

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Item 69. Image DJI_0015.JPEG



Item 69. Image DJI_0016.JPEG

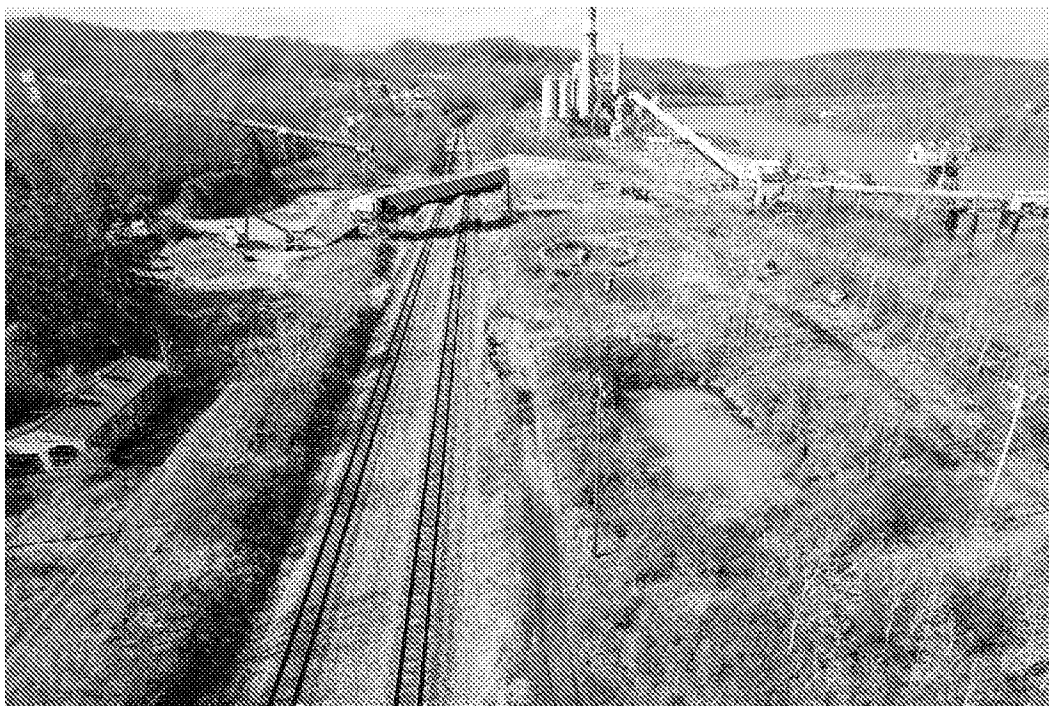
Examiners Initials: ☐ Date: 07/17/2024 Lab #: 2024-01571-17

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Item 69. Image DJI_0017.JPEG



Item 69. Image DJI_0018.JPEG

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Item 69. Image DJI_0019.JPEG



Item 69. Image DJI_0020.JPEG

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END OF EXAM

Images and flight overlay information were saved to secondary evidence Item 76.

DISPOSITION OF EVIDENCE:

Items 69, 69-1, 70-2, 70-3 were returned to Container J and will be placed in the evidence room after tech and admin review.

Examiners Initials: ☐ Date: 07/17/2024 Lab #: 2024-01571-17

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