

UFODATA Update #10

From: "UFODATA Updates" <admin@ufodata.net>
To: "Fran Ridge" <skyking42@gmx.com>
Date: Dec 11, 2020 1:55:02 AM

Dear Fran Ridge,

Hello again, everyone. This is our latest update about the UFODATA project, but before we begin, we hope that you and those close to you have continued to do as well as possible during these very trying times.

Our collaboration with UFODAP (The UFO Data Acquisition Project - <https://ufodap.godaddysites.com/>), which we announced earlier this year, has continued, and there has been excellent progress on the hardware and software for the UFODAP station. This recent article provides more details about UFODAP and mentions UFODATA and our collaboration [Looking for UFO Data in Your Own Backyard | Trail of the Saucers \(medium.com\)](#).

Although the pandemic has impeded the opportunity to install new hardware at the UFODAP main testing site in the San Luis Valley in Colorado, work has continued on software development and debugging of the three main UFODATA applications: OTDAU (Optical Tracking Data Acquisition Unit), Mission Control (the software that displays acquired data and does some basic processing), and the embedded code in the Multi-sensor Data Acquisition Unit, the core of the station. A new release of all three to move to Python 3.x 64-bit and implement a number of new features has been mostly completed. Some highlights about improvements or new features include:

- RF Spectrum Analysis using Software Defined Radio (SDR) hardware in the MSDAU and spectrum presentation by MC.
- More advanced scrolling MSDAU data presentation by the Mission Control software.
- CSV format file save of all OTDAU position and MSDAU data (analog and RF).
- Ability to restart the last system configuration by just clicking on the Load button.
- Greatly simplified selection of OTDAU bounding box by drawing it with the mouse.
- Automatic support for any frame resolution a USB camera can support.
- Improved memory management to support high-resolution cameras on the OTDAU

We have a few photos or screenshots to illustrate the UFODAP station features.

In this [screenshot](#), we see the display for the Optical Tracking Unit, with the wide field camera view on the left, and the second, narrow field-of-view camera on the right. The blue rectangle indicates that the wide field camera has detected something that will trigger handoff to the second camera.

Wide-Angle Video Display

AZ:129.7 EL:19.8 HFOV:58.0 VFOV:40.0

Wide Camera: Dahua N51BD22 2304x1296
 Thursdav 20 Aug 2020 16:25:46PM

Auxiliary Video Display

AZ:129.7 EL:19.8 Zoom: 1.0 HFOV:58.0 VFOV:40.0
 PTZ Activity:

Tele Camera: Dahua 42212 1920x1080
 Thursdav 20 August 2020 16:25:46PM

Stopped
Run
Stop
Load
Quit

Raw Video
Telephoto
Tracking
Path

PTZ Controls

Enabled

Ready to record

UP

ZOOM WIDE

Bounding BOX

LEFT

RIGHT

DOWN

ZOOM TELE

0.5

PTZ SPEED

ENTER

Dahua N51BD22 2304x1296, port 1600

Status

This second screenshot from the Mission Control software shows the display of several key physical parameters that the station records, including weather, magnetic field, and acceleration. The boxes on the right provide images from the cameras in real time and actual data values from the sensors.

Video and Data Display

MSDAU 3 Data - Friday 21 August 2020 09:26:07AM

Humidity

Temperature

Pressure

Magnetometer

Orientation degrees

Gyro deg/sec

Accelerometer deg-Gs

Yaw Pitch Roll

Roadmap
Satellite
Hybrid
Terrain
Status

Ready to run
Run
Stop
Load
Quit

Map Display Controls

Enabled

Not ready to record

UP

ZOOM IN

LEFT

RIGHT

RESET

DOWN

ZOOM OUT

UFODAS Mission Control -- Two cameras and MSDAUs

Data Acquisition Units

DAU 1

otdau-pc8930-cam1 ONLINE

Not triggered

Time: 09:26:08

Location: 17315 Haynes St. Van Nuys

Azimuth: 29.00 degrees

Elevation: 20.00 degrees

Zoom: 1.00

Display Video

DAU 2

msdau-145 ONLINE

Not triggered

Time: 2020-08-21 09:26:07 GPS

Location: 34.189836, -118.510035

GPS Latitude: 34.18961 degrees

GPS Longitude: -118.51059 degrees

GPS Altitude: 222.164 feet

Magnetometer: -11.713 -11.274 -1.101 uTesla

Orientation: 140.080 0.089 359.096 degrees

Gyro: 0.001 -0.000 0.000 degrees

Accel: 139.935 0.174 359.094 degrees

Accel: -0.001 -0.018 0.998 Gs

Humidity: 32.4824 percent

Temperature: 35.6055 deg C

Pressure: 29.1548 in mercury

Electromagnetic: 0.0000

Display Plot

Display RF

DAU 3

otdau-pc8930-cam2 ONLINE

Not triggered

Time: 09:26:08

Location: 16544 Haynes St. Van Nuys

Azimuth: 29.00 degrees

Elevation: 19.50 degrees

Zoom: 1.00

Display Video

DAU 4

msdau-144 ONLINE

Not triggered

Time: 2020-08-21 09:26:06 GPS

Location: 17315 Haynes St., Van Nuys

GPS Latitude: 34.18925 degrees

GPS Longitude: -118.51025 degrees

GPS Altitude: 222.349 feet

Magnetometer: 2.751 -18.484 20.617 uTesla

Orientation: 92.497 0.291 0.178 degrees

Gyro: -0.005 0.001 -0.003 degrees

Accel: 92.730 0.304 0.149 degrees

Accel: -0.062 0.012 1.000 Gs

Humidity: 29.2965 percent

Temperature: 37.5594 deg C

Pressure: 29.1348 in mercury

Electromagnetic: 0.0000

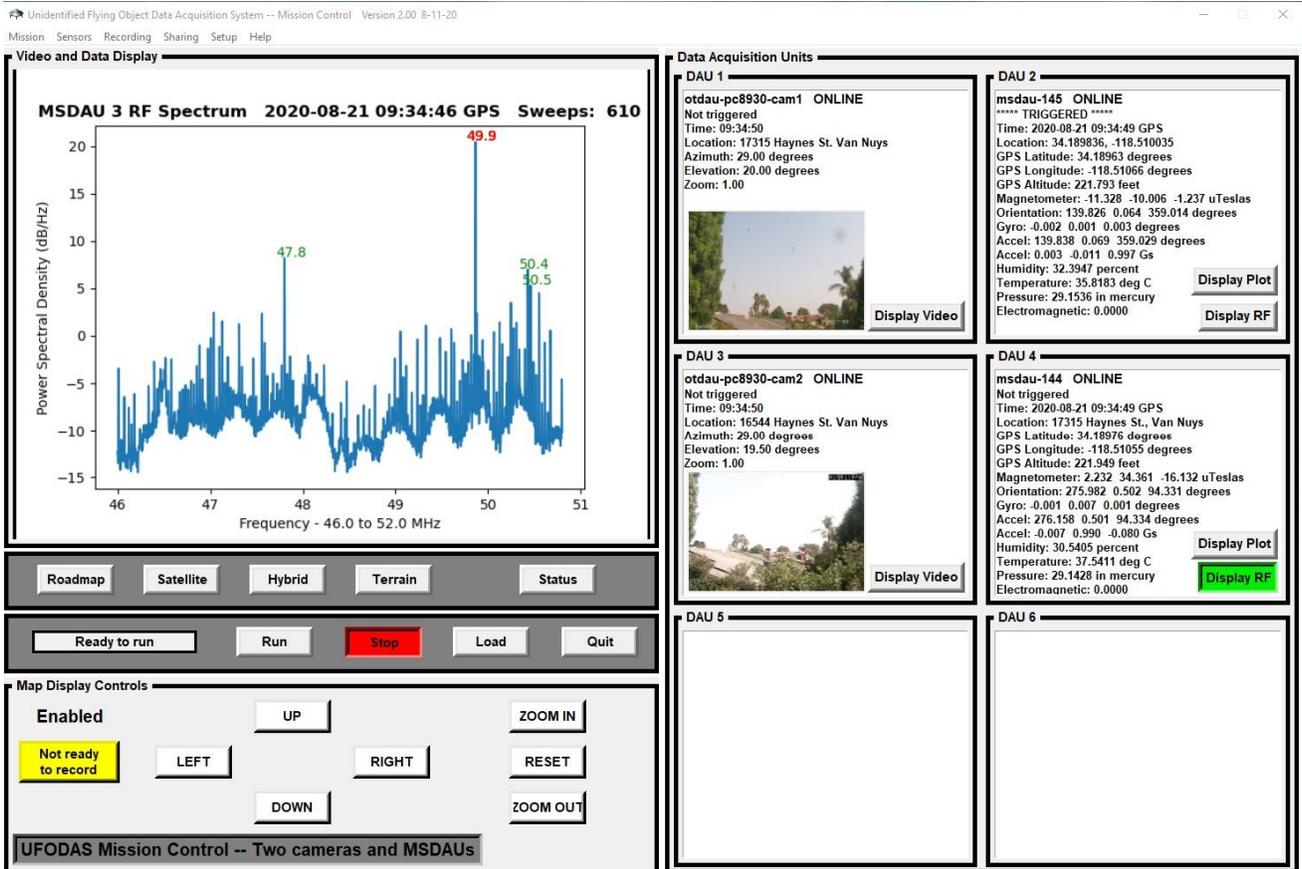
Display Plot

Display RF

DAU 5

DAU 6

The third [screenshot](#) provides a similar view but with the radio frequency spectrum displayed, with an anomalously high value.



Currently the project engineer for UFODAP is working on adding the capability to simultaneously take a spectrum of a detected UFO and an image in the same frame, something that we have worked on previously with the UFODATA team, who has provided advice and suggestions.

We think you will agree that the progress above is very encouraging.

A next key step is to set-up the central computer server that will store and process data from the stations, and this will be a project led by UFODATA. We have created a series of design documents that, based on our experience, lists all the key requirements and the process to complete the software and hardware development. We are now actively searching for volunteer programming resources for this project. If you or someone you know is a programmer who knows Php, Javascript, CSS, HTML and Python, or some of these, and who has the time and interest, you can visit our [Facebook](#) page to see details on requirements, or email us directly at admin@ufodata.net.

If the pandemic hadn't occurred, as with so many, many activities, we and UFODAP would be much further along in field testing of these latest enhancements (which are currently tested at the home of the project engineer). But we are certain we will be able to accomplish this in 2021. Fortunately, the server development is not limited by current conditions.

For those of you who have newly joined the mailing list, you can read previous updates here (<http://www.ufodata.net/updates.html>).

Many thanks to all of you who are spreading the word about us in your social networks. We certainly very much appreciate everyone's interest and all those who have signed up or donated to the project. Please have a safe, healthy, and happy holidays.

The UFODATA Team

UFODATA
ufo detection and tracking

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