

# Civil Air Patrol



## DAART

**30 August 2017  
San Antonio, TX**

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# Welcome



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# DAART Introduction

## *DOMOPS Awareness and Assessment Tool*

*“Providing Imagery, Video, Geospatial, C2, and Collaboration Capabilities to and from the Incident Awareness & Assessment (IAA) Community”*

*Developed by the US Army Space and Missile Defense Command*

*Fully funded and made available to qualified agencies at no ongoing cost*



# DAART Introduction

- Capture, near-real time transmission, and presentation of:
  - Geocoded full-motion video
  - Geocoded high resolution still photos
- Map-based presentation of operator locations, track history and many external data sources
- Collaboration tools enabling real-time interaction between mission base staff, aircrews, ground teams and our customers
- For use with non-classified information only
- Integration with FEMA Uploader is in development



# DAART Components

- Panasonic Toughbook with integrated GPS
- Video camera with USB interface
- Incorporates Nikon SLR cameras currently issued to each wing
- Windows-based Client application
  - Capture and geocoding of full-motion video
  - Captured video is streamed in near-real time and also stored on PC hard drive
  - Near real-time user position reporting
  - User chat function

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# DAART Components

- Android and iPhone® Client application
  - Stream previously captured full-motion video
  - Capture and upload still photographs
  - Real-time position reporting
  - User chat function
  - Note that this is a subset of the PC client capabilities. Video and images are not geocoded for example.

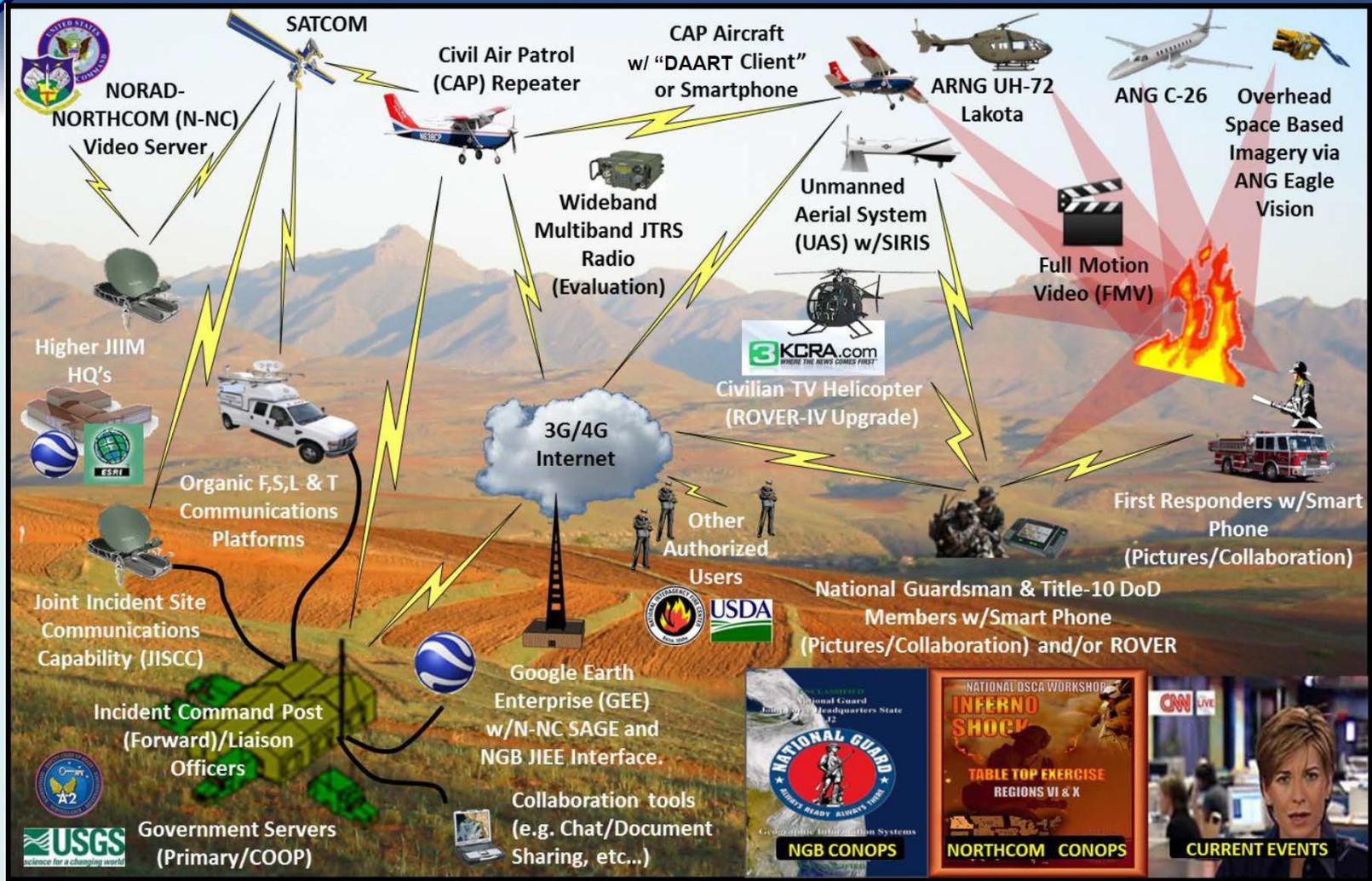


# DAART Components

- Web-based collaboration application
  - View live and previously captured video
  - Share geocoded still photos and other documents
  - Operator position tracking
  - Import and overlay information from multiple sources  
*on various map types*
  - User chat function
  - Export to other tools such as Google Earth



# DAART Capabilities



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# DAART Components

- Communication options
  - Airborne:
    - Sprint 3G PCS and Verizon 4G PCS
    - Harris PRC-117/G wideband data radios (*currently provided by National Guard*)
  - Ground mobile: any cellular provider or Harris
  - Mission base: Ethernet or WiFi
  - Globalstar (limited to chat and position reporting)



# DAART Users



*Users from any authorized agency have the option to collaborate with other agencies when appropriate. The originator of the mission controls who has access.*

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# DAART Approved Agencies

## Potential customers / partners

JFHQ-State

State Emergency Operation Center (EOC)

U.S. Geological Survey

State Police

State Fire Department

State Engineers

Department of Transportation and Development (State)

Department of Health and Hospitals (State)

Emergency Preparedness Liaison Officers (EPLOs)

Federal Aviation Administration (FAA)

Defense Coordinating Officer/Element (DCO/E)

U.S. Army North (ARNORTH)

Department of Energy (DOE)

Department of Agriculture and Forestry

National Geospatial-Intelligence Agency (NGA)

Department of Social Services (State)

Department of Corrections (State)

Department of Justice (State)

Department of Natural Resources (State)

State Universities [Health, Sciences & GIS]

Other Local and Tribal Agencies



# DAART PC Client

GPS Status  
Current Position

Current Mission  
Name and type

Video Controls

Video Name

Recording start/stop

Snap

Mark

Annotate

Current Event

The screenshot shows the DAART PC Client interface with the following components:

- GPS Status:** A green square icon indicates the current position. The location is "Hampshire, IL" with coordinates Lat 42.097803 and Lon -88.530364.
- Mission:** The current mission is "10-18-2015" with a type of "Ground". A "Start" button is visible.
- Video:** A video player shows a cityscape (Chicago skyline). Below the video are controls for "Record", "Snap", "Mark", and "Annotate".
- Chat:** A chat window shows a message from "robert.becker" at 9:51 AM: "Good morning everyone!". A "Send" button is at the bottom.
- Current Event:** The event is "NESA 2015" with a duration of 00:01:25.

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# DAART web interface

Secure https://daart.us

Apps AT&T Business Center Imported From Edge CAP Donnelly Messaging Toolkit News Office 365 Travel Weather Inside RRD

**DAART** DOMOPS Awareness and Assessment Response Tool

Event Security: All type to filter events Advanced Search robert.becker

Event/Incident Add Event

<p>0 0 1 0 0</p> <p>Michigan CD Training</p>	<p>0 0 22 0 0</p> <p>BSA Jamboree 2017</p>	<p>0 0 5 0 0</p> <p>Iowa Flooding</p>
<p>0 0 1 0 0</p> <p>VTNG AUG CPX</p>	<p>0 0 3 0 0</p> <p>Mighty Mac Bridge</p>	<p>0 0 1 0 0</p> <p>17-T-5449</p>
<p>0 0 58 0 0</p> <p>PATRIOT North 17</p>	<p>0 0 7 0 0</p> <p>SAREX 2016</p>	<p>0 0 1 0 0</p> <p>HAWAII DISASTER WATCH</p>
<p>0 0 9 0 0</p> <p>OPSEC</p>	<p>0 0 15 0 0</p> <p>DAART SW 1.0.2 Test</p>	<p>0 0 39 0 0</p> <p>Hurricane Matthew</p>
<p>0 0 52 0 0</p> <p>DAART Training/Demo</p>	<p>0 0 17 0 0</p> <p>VG 17-04</p>	<p>0 0 8 0 0</p> <p>ANG CEX MEOC Trng</p>



# DAART web interface

The screenshot displays a web browser window with the URL <https://daart.us/Event/Details/561>. The browser's address bar shows a secure connection. Below the browser, a navigation bar includes a dropdown menu for 'Event' set to 'BSA Jamboree 2017', a user profile for 'robert.becker', and system status icons for 1 user, 0 alerts, 22 messages, and 0 notifications. The time is shown as Local 20:50:49 and Zulu 01:50:49.

The interface is divided into two main sections:

- Chat:** A chat window titled 'Event Chat' shows a message from 'robert.becker CAP DAART Admin' with the text 'Good evening' sent 'less than a minute ago'. A text input field at the bottom contains the placeholder 'Type your message here...' and a 'Send' button.
- Event Map:** A map showing the location of the event. The map features a purple outline of a route or area. Key locations labeled include 'Oak Hill', 'limnixon', 'Mount Hope', 'Summit Bechtel Scout Reserve', and 'New River Gorge National River'. Road markers for 'US 19', 'US 9', 'WV 612', and 'WV 61' are visible. The map includes a zoom control on the left and a status bar at the bottom showing coordinates (37.89783, -81.23745), a 'Show Labels' checkbox, and a dropdown for 'Open Street Map'.

On the right side of the map, there is a vertical sidebar labeled 'Event Objects'. At the bottom right of the interface, there is a 'Videos' button with a play icon.

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# DAART web interface

Event: BSA Jamboree 2017    Local 20:57:42    Zulu 01:57:42    robert.becker

1   0   22   0

### Chat

Event Chat

**robert.becker CAP DAART Admin** 8 minutes ago  
Good evening

Type your message here... **Send**

Video: 07\_33\_34\_recMission: 7-19-2017\_rec

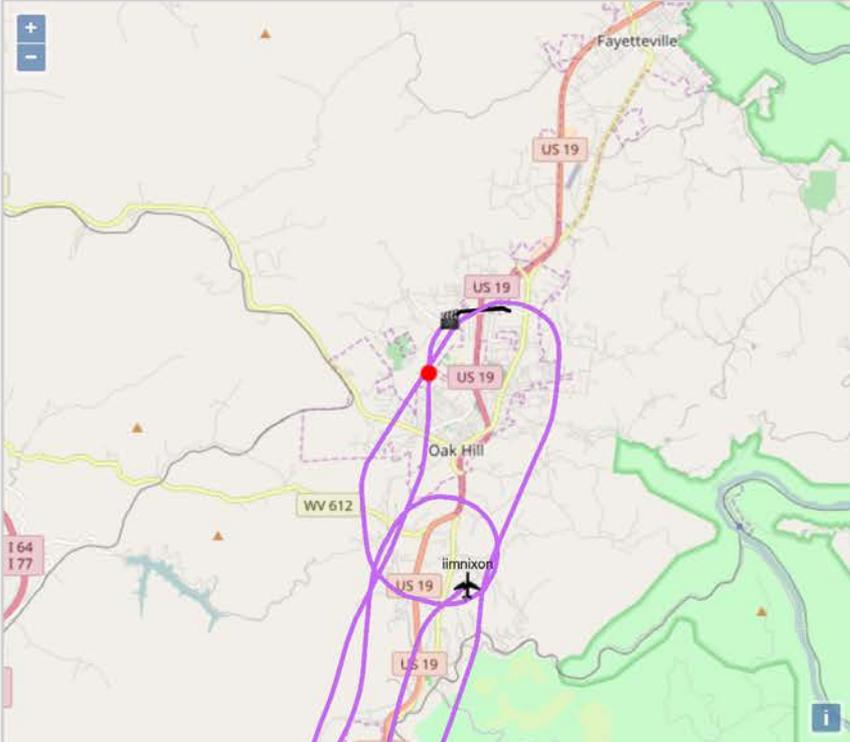
Annotations



**Add**

Show Current Location     Center Map

### Event Map



DD 37.98689 -81.24931

Show Labels    Open Street Map

Event Objects

Videos

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# DAART web interface

Event: BSA Jamboree 2017    Local 21:04:30    Zulu 02:04:30    robert.becker

### GIS Layers

Manage Layers

- FEMA Photos
- Weather
  - NOAA NWS Watches, Warnings, Advisories, and Statements for Long-Duration Hazards (Time Enabled)
  - NOAA NESDIS GOES EAST-WEST Composite Imagery (Time Enabled)
  - NOAA NWS NDFD Gridded Forecasts of 6-Hr Quantitative Precipitation Amount (inches) (Time Enabled)
  - NOAA NWS NEXRAD MRMS Weather Radar Imagery (Time Enabled)
  - NOAA NWS Watches for Short-Duration Hazards for Inland, Coastal, and Maritime Areas (Time Enabled)
  - NOAA NWS Weather Warnings for Short-Duration Hazards in Inland, Coastal, and Maritime Areas (Time Enabled)
  - NOAA Quantitative Precipitation Estimates (Time Enabled)
  - NOAA Tropical Cyclone Track and Intensity Forecasts (Time Enabled)
  - Surface Weather and Ocean Observations (Time Enabled)
- Static Geospatial
  - Aviation Charts
    - enra
    - enrh
    - enrl
    - sec
    - tac
    - wac
  - HSIP
  - NAIP

**NOAA NWS NEXRAD...**    Transparency:

### Event Map

DD    34.91670    -103.32873     Show Labels    USGS Topo

Videos

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# DAART web interface

Event | BSA Jamboree 2017 | 1 | 0 | 22 | 0 | Local 21:13:24 | Zulu 02:13:24 | robert.becker

### GIS Layers

Manage Layers

- Media
- Non-Static Geospatial
- Static Geospatial
  - Aviation Charts
  - HSIP
  - NAIP
    - (Alabama\_2015\_1m)
    - (Arizona\_2015\_1m)
    - (Arkansas\_2015\_1m)
    - (California\_2016\_60cm)
    - (Colorado\_2015\_1m)
    - (Connecticut\_2016\_60cm)
    - (Delaware\_2015\_1m)
    - (Florida\_2015\_1m)
    - (Georgia\_2015\_1m)
    - (Idaho\_2015\_1m)
    - (Illinois\_2015\_1m)
    - (Indiana\_2016\_60cm)
    - (Iowa\_2015\_1m)
    - (Kansas\_2015\_1m)
    - (Kentucky\_2016\_60cm)

### Event Map

(Illinois\_2015\_1m) [Close]

Transparency: [Slider]

Map Labels: Allen Road, CR 3, Glen Oaks Court

[Show Labels] [Open Street Map]

Identify | Videos

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# DAART web interface

Event BSA Jamboree 2017 1 0 22 0 Local 21:27:05 Zulu 02:27:05 robert.becker

GIS Layers

### Event Map

US 19  
WW 16  
WW 61  
New River Gorge National Park  
New River Gorge National Park

DD 37.91129 -81.12059  Show Labels Open Street Map

### Event Objects

- Map Layers
- Users
- Pictures
- Graphics

[Add Placemark](#) [Add Spot Report](#)

[Upload Kml](#)

### Placemark Details

Title

Text

Latitude

Longitude

[Save](#) [Cancel](#)

### Documents

### Missions

Videos

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# DAART web interface



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# GIIEP to DAART Transition

- GIIEP was decommissioned in January of 2017
- GIIEP was a fairly static and challenging product
- DAART is the successor, and is a total rewrite of the application with ongoing scheduled enhancements
- Much more intuitive interface, with typical Windows application behaviors
- Most functions moved to a web-based application
- Legacy GIIEP hardware is still used to capture video and position information



# GIIEP to DAART Transition

- GIIEP Operators will need to re-qualify for DAART
- Training and exercises take about two days and is intended for use by qualified MS/MO and GTM/UDF users.
- There are three pre-requisite courses needed for DAART Operators:
  - DAART Intelligence Oversight Training
  - DAART Security Awareness
  - Unclassified Controlled Cryptographic Item Access Awareness (in LMS)



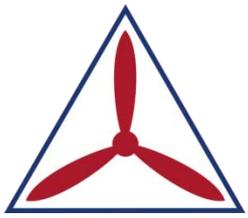
# GIIEP to DAART Transition

- There is also an Ops Qual for mission base staff called DAART User
- Prerequisites: GTM –or– UDF –or– MSA –or– MRO
- Training can be completed in about 3 hours and can be done via classroom, webinar and in the future via Learning Management System.
- This is a subset of the DAART Operator training so Users can upgrade to Operators later if desired.



# Formal Training

- DAART Operator
  - NESAs
  - On-site (as training funding allows)
- DAART User
  - Via webinar
  - In LMS (late 2017)
  - On-site (in conjunction with DAART Operator)
- SET for DAART in Ops Quals later in 2017



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**Q&A**

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