



Geospatially Enabling the Intelligence Collector

David Attaway

Natalie Feuerstein

Phil Suarez

Our Community



The Intelligence Collector...

Our Community

Geospatially Enabling the Intelligence Collector



Everyone is not a GIS professional!

It's easier than you think!!

Our Community

Geospatially Enabling the Intelligence Collector



Everyone is not a GIS professional!

So, what do I need to know?

GIS is for Everyone!

Our Community

Geospatially Enabling the Intelligence Collector



Everyone is not a GIS professional!

So, what do I need to know?

How do I get started?

Let's talk about WebGIS

A Web GIS Integrates All Data Types

With Web Maps and Web Services



Brings together Foundational and Operational Layers

ArcGIS Is a Platform...

Enabling Web GIS Everywhere

Simple
Integrated
Open



*Available in the Cloud . . .
. . . and On-Premises*

Data, Data, Data

Report is what we do!

Jan 29/1950

A. 357 GROUP. LT. DL. HAYES LEADING.
B. 50 P-51'S. 17-362, 17-363, 16-364. HP 0650, ROWN 1120.
C. 11. 2 ESCORTS.
D. PENETRATION, TARGET AND WITHDRAWAL SUPPORT. F.O. 422, VIII 1
E. 1 LOST. E/A
F. 1 CAT A. FLAK.
G. 1 MYR. CAPT RICHARD C. SMITH, 56A 9300. 20 MILES SW LEIPZIG,
SAID HE WAS SAILING.
H. 5/E 17-0-3 (AIR)
T/E 5-0-1 (AIR)
TOTAL 2R-0-0 (AIR)
1 LOCOMOTIVE DESTROYED
1 LOCOMOTIVE DAMAGED
I. R/V DUMMER LAKE 25,000 I
WERE ATTACKED AND DISPE
LEIPZIG 0850 TO 0930 FM
AD HE-177 WERE ATTACKED
DESTROYED AND DAMAGED M
CAVE ESCORT TO THE "CON
1000 AT 25,000 FT. AN
51 DEGREES 45 MINUTES N
20 PLUS 6/E E/A PARKED
3 CHUTES SEEN.
J. 5/E 17-0-3 (AIR)
T/E 5-0-1 (AIR)
LOCOMOTIVES 1-0-1
K. 1 ME-410 DESTROYED, LT. MO
1 ME-109 DESTROYED, LT. FO
1 FW-190 DESTROYED, CAPT. J
1 FW-190 DAMAGED, CAPT. FRI
L. 1 FW-190 DESTROYED, CAPT. J
2 ME-109'S DESTROYED, CAPT.
1 ME-109 DESTROYED, CAPT.
2 ME-410'S DESTROYED, CAPT.
1 FW-190 DESTROYED, CAPT.
1 ME-410 DESTROYED, LT. J
1 FW-190 DESTROYED, LT. J
3 FW-190 DESTROYED, CAPT.
M. 1 FW-190 DESTROYED, CAPT. SU
1 ME-410 DESTROYED, LT. COL.
1 ME-109 DESTROYED, LT. COL.
1 ME-109 DESTROYED, LT. TYLL
1 ME-109 DESTROYED, CAPT. NO
1 ME-109 DESTROYED, CAPT. SU
1 FW-190 DESTROYED, CAPT. ST
1 FW-190 DAMAGED, CAPT. NO
1 FW-190 DAMAGED, LT. ALLE
1 ME-177 DAMAGED, CAPT. MC
1 LOCOMOTIVE DESTROYED, CAPT.
1 LOCOMOTIVE DAMAGED, CAPT.
BT
ToD.D. 29/1826P L.T.M. AR
VOILES R.....29/1845B TED AR

HEA
NINETY FIFTH B
Office of the

SUBJECT: Base Engineering Rep

TO : COMMANDING GENERAL,
COMMANDING OFFICER,

1. The following information was received from the mission of the 95th Bombardment Group (H) on August 16, 1948.
a. Twenty-two (22) B-17F airplanes took-off, one (1) returned to base as per scheduled.
b. All aircraft returned to base after completing mission.
2. There were no abortive airplanes.
3. Battle damage is as follows:
a. 42-30300 - Two flak holes in bomb-bay-sliding window broken by flak (pilot's side). Minor sheet metal damage.
b. 42-30271 - Cylinder change #2 engine caused by flak. Minor sheet metal damage.
c. 42-30218 - Nose section damaged by flak - Minor sheet metal damage.
d. 42-30244 - Two bullet holes in #3 propeller.

CIA RENCE D. FIELDS,
Major, Air Corps,
Base Engr. Officer.

UNCLAS
OPER/SLAMMER 9401/USACOM2313/EAGLE SLAM//
MSGID/MISREP/27FS DOW/4001/DEC//
REF/A/ORDER/9AF/232300ZDEC93/9005/NOTAL//
REF/B/INTSUM/ACIN/231100ZDEC93//
MSNID/DCA/9 TACC/1/BB5656//
UNID/27 FS//
ROUTE/242355Z/3436N07825W/250015Z/RPNAME:CAP DELTA/250020Z/RPNAME:CAP ECHO//
FLTDTAIL/DINGLE91/KLFI/27/FLGC/242350Z/250001Z/WASH//
TIMESPEC/TFRM:AIRALERT/250005Z/250100Z//
TGTPOS/06/UNKNOWN AIRCRAFT/UR/POSNID/GULF OF MEXICO/OVER WATER/
2335N07925W/000T/630KTS/AGL:50//
RESULT/TOTEL:6 FLOGGER LIKE AIRCRAFT/PTY:4/DESTR:YES/
ATTACK/17QNL12341234//
TARWI/4/8/6/1/D//
JAM/RADAR:2N//
ENINCEPT/2335N07925W/250055Z/AGL:50/NONATO:FLOGGER/UR/6/6/5/4/AA3//
ACLOSS/DINGLE94/F15C/2334N07859W/250050Z/CHUT/MSLS-RKT-AA//

Text Documents
and Reports

Reports can be entered into a GIS

Data, Data, Data

Reports is what we do!

Images, Presentations

A. 357 GROUP. LT. DL. HAYES LEADING.
B. 50 P-51'S. 17-362, 17-363, 16-364. HP 0656, RKN 1120.
C. 11. 2 ESCORTS.
D. PENETRATION, TARGET AND WITHDRAWAL SUPPORT. F.O. 422, VIII I
E. 1 LOST. E/A
F. 1 CAT A. FLAK.
G. 1 MYR. CAPT RICHARD C. SMITH, 36A 930N. 20 MILES SW LEIPZIG,
SAID HE WAS RAILING.

H. 5/E 17-0-3 (AIR)
T/E 5-0-1 (AIR)
TOTAL 28-0-4 (AIR)
1 LOCOMOTIVE DESTROYED
1 LOCOMOTIVE DAMAGED

I. R/V DUMMER LAKE 25,000 I
WERE ATTACKED AND DISPE
LEIPZIG 0830 TO 0930. 7 PM
AN HE-177 WERE ATTACKED
DESTROYED AND DAMAGED IN
CAVE ESCORT TO THE "CON
1000 AT 25,000 FT. AN
51 DEGREES 45 MINUTES N
20 PLUS 6/E E/A PARKED
3 CHUTES SEEN.

J. 5/E 17-0-3 (AIR)
T/E 5-0-1 (AIR)
LOCOMOTIVES 1-0-1

1 ME-109 DESTROYED, LT. NO
1 ME-109 DESTROYED, LT. NO
1 FW-190 DESTROYED, CAPT. J
1 FW-190 DAMAGED, CAPT. J

1 FW-190 DESTROYED, CAPT. J
2 ME-109'S DESTROYED, CAPT.
1 ME-109 DESTROYED, CAPT.
2 ME-109'S DESTROYED, CAPT.
1 FW-190 DESTROYED, CAPT.
1 ME-109 DESTROYED, LT. J
1 FW-190 DESTROYED, LT. J
3 FW-190 DESTROYED, CAPT.

1 FW-190 DESTROYED, CAPT. SU
1 ME-109 DESTROYED, LT. COL.
1 ME-109 DESTROYED, LT. COL.
1 ME-109 DESTROYED, LT. TYLE
1 ME-109 DESTROYED, CAPT. NO
1 ME-109 DESTROYED, CAPT. SU
1 FW-190 DESTROYED, CAPT. ST
1 FW-190 DAMAGED, CAPT. NO
1 FW-190 DAMAGED, LT. ALLE
1 ME-177 DAMAGED, CAPT. MC
1 LOCOMOTIVE DESTROYED, CAPT.
1 LOCOMOTIVE DAMAGED, CAPT.

BT

To.D.D. 29/18269 .L.T.M. AR
VOILES R.....29/18458 TED AR

HEA
NINETY FIFTH B
Office of the

SUBJECT: Base Engineering Rep

TO : COMMANDING GENERAL,
COMMANDING OFFICER,

1. The following information was received from the mission of the 95th Bombardment Group (H) on August 16, 1943.

a. Twenty-two (22) B-17F airplanes took-off, one (1) returned to base as per scheduled.

b. All aircraft returned to base after completing mission.

2. There were no abortive airplanes.

3. Battle damage is as follows:

a. 42-30300 - Two flak holes in bomb-bay-sliding window broken by flak (pilot's side). Minor sheet metal damage.

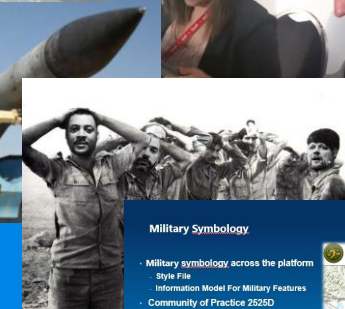
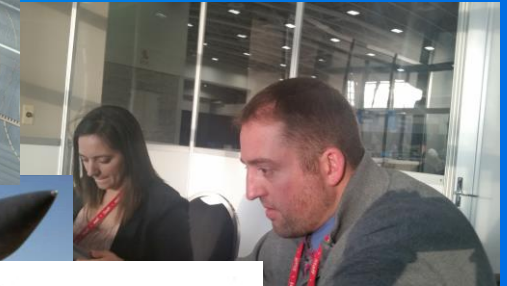
b. 42-30271 - Cylinder change #2 engine caused by flak. Minor sheet metal damage.

c. 42-30218 - Nose section damaged by flak - Minor sheet metal damage.

d. 42-30244 - Two bullet holes in #3 propeller.

CIA RENCE D. FIELDS,
Major, Air Corps,
Base Engr. Officer.

UNCLAS
OPER/SLAMMER 9401/USACOM2313/EAGLE SLAM//
MSGID/MISREP/27FS DOW/4001/DEC//
REF/A/ORDER/9AF/232300ZDEC93/9005/NOTAL//
REF/B/INTSUM/ACIN/231100ZDEC93//
MSNID/DCA/9 TACC/1/BB5656//
UNID/27 FS//
ROUTE/242355Z/3436N07825W/250015Z/RPNAME:CAP DELTA/250020Z/RPNAME:CAP ECHO//
FLTDTAIL/DINGLE91/KLFI/27/FLGC/242350Z/250001Z/WASH//
TIMESPEC/TFRM:AIRALERT/250005Z/250100Z//
TGTPOS/06/UNKNOWN AIRCRAFT/UR/POSNID/GULF OF MEXICO/OVER WATER/
2335N07925W/000T/630KTS/AGL:50//
RESULT/TOTEL:6 FLOGGER LIKE AIRCRAFT/QTY:4/DESTR:YES/
ATTACK/17QNL12341234//
TARWI/4/8/6/1/D//
JAM/RADAR:2N//
ENINCEPT/2335N07925W/250055Z/AGL:50/NONATO:FLOGGER/UR/6/6/5/4/AA3//
ACLOSS/DINGLE94/F15C/2334N07859W/250050Z/CHUT/MSLS-RKT-AA//



Text Documents and Reports

Reports are easily entered into a GIS

Data, Data, Data

Reports is what we do!

Images,
Presentations

A. 357 GROUP. LT. DL. HAYES LEADING.
D. 50 P-51'S. 17-36Z, 17-36Z, 16-36Z. HP 0656, RKN 112Z.
C. 11. 2 ESCORTS.
D. PENETRATION, TARGET AND WITHDRAWAL SUPPORT. F.O. 42Z, VIII 1
E. 1 LOST. E/A
F. 1 CAT A. FLAK.
G. 1 MYR. CAPT RICHARD C. SMITH, 56A 930Z. 20 MILES SW LEIPZIG,
SAID HE WAS RAILING.

H. 5/E 17-0-3 (AIR)
T/E 5-0-1 (AIR)
TOTAL 2R-0-4 (AIR)

1 LOCOMOTIVE DESTROYED
1 LOCOMOTIVE DAMAGED

I. R/V DUMMER LAKE 25,998 I
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LEIPZIG 0830 TO 0930 Z
AD HE-177 WERE ATTACKED
DESTROYED AND DAMAGED IN
CAVE ESCORT TO THE "OHBI
1030 AT 25,998 FT. AD
51 DEGREES 45 MINUTES N
20 PLUS 6/E E/A PARKED
3 CHUTES SEEN.

J. 5/E 17-0-3 (AIR)
T/E 5-0-1 (AIR)
LOCOMOTIVES 1-0-1

1 ME-410 DESTROYED, LT. POW
1 ME-109 DESTROYED, LT. POW
1 FW-190 DESTROYED, CAPT. J
1 FW-190 DAMAGED, CAPT. J

1 FW-190 DESTROYED, CAPT. J
2 ME-109'S DESTROYED, CAPT.
1 ME-109 DESTROYED, CAPT.
2 ME-410'S DESTROYED, CAPT.
1 FW-190 DESTROYED, CAPT.
1 ME-410 DESTROYED, LT. J
1 FW-190 DESTROYED, LT. J
3 FW-190 DESTROYED, CAPT.

1 FW-190 DESTROYED, CAPT. SU
1 ME-410 DESTROYED, LT. COL.
1 ME-109 DESTROYED, LT. COL.
1 ME-109 DESTROYED, LT. TYLE
1 ME-109 DESTROYED, CAPT. NO
1 ME-109 DESTROYED, CAPT. SU
1 FW-190 DESTROYED, CAPT. ST
1 FW-190 DAMAGED, CAPT. NO
1 FW-190 DAMAGED, LT. ALLE
1 ME-177 DAMAGED, CAPT. OC
1 LOCOMOTIVE DESTROYED, CAPT.
1 LOCOMOTIVE DAMAGED, CAPT.

BT

To: D. 29/1826P L.T.M. AR
VOILES R.....29/1845P TED AR

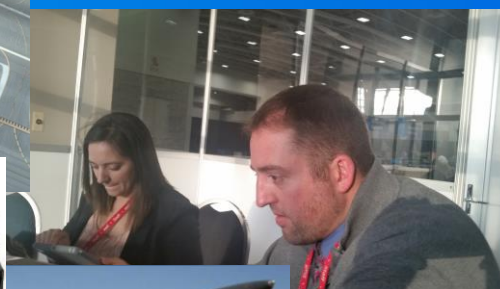
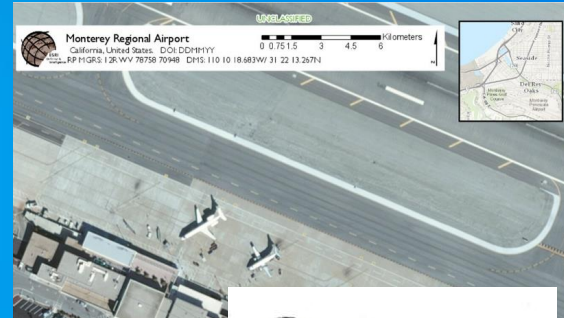
UNCLAS
OPER/SLAMMER 9401/USACOM2313/EAGLE SLAM//
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REF/A/ORDER/9AF/232300ZDEC93/9005/NOTAL//
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ECHO//
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RESULT/TOTEL:6 FLOGGER LIKE AIRCRAFT/PTY:4/DESTR/YES/
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TARWI/4/8/6/1/D//
JAM/RADAR:2N//
ENINCEPT/2335N07925W/250055Z/AGL:50/NK
ACLOSS/DINGLE94/F15C/2334N07859W/2500//

SUBJECT: Base Engineering Rep

TO : COMMANDING GENERAL,
COMMANDING OFFICER,

- The following information was received from the mission of the 95th Bombardment Group (H) on August 16, 1943.
 - Twenty-two (22) B-17F airplanes took-off, one (1) returned to base as per scheduled.
 - All aircraft returned to base after completing mission.
- There were no abortive airplanes.
- Battle damage is as follows:
 - 42-30300 - Two flak holes in bomb-bay-sliding window broken by flak (pilot's side). Minor sheet metal damage.
 - 42-30271 - Cylinder change #2 engine caused by flak. Minor sheet metal damage.
 - 42-30218 - Nose section damaged by flak - Minor sheet metal damage.
 - 42-30244 - Two bullet holes in #3 propeller.

CIA RENCE D. FIELDS,
Major, Air Corps,
Base Engr. Officer.

A collage of various software interfaces for data entry and management. The interfaces include forms for "Customer Details", "Employee Details", "Parts Orders Data Entry", "My War Collection", and "Financial Summary". Each interface has multiple fields for data entry, including names, addresses, phone numbers, and dates.

Text Documents
and Reports

Form Based Data Entry

GIS Supports these Workflow

Useful Data

It starts at the point of collection!

How do I normalize
the data at the
point of entry?

**HEADQUARTERS
NINETY FIFTH BOMBARDMENT GROUP (H)
Office of the Engineering Officer**

SUBJECT: Base Engineering Report on Combat Mission

**TO : COMMANDING GENERAL, Fourth Bombardment Wing
COMMANDING OFFICER, 95th Bombardment Group**

1. The following information is submitted on mission of the 95th Bombardment Group (H) on August 1, 1944.

a. Twenty-two (22) B-17F airplanes took-off, one (1) returned to base as per scheduled.

b. All aircraft returned to base after completion of mission.

2. There were no abortive airplanes.

3. Battle damage is as follows:

a. 42-30300 - Two flak holes in bomb-bay-al by flak (pilot's side). Minor sheet metal damage.

b. 42-30271 - Cylinder change #2 engine on sheet metal damage.

c. 42-30218 - Nose section damaged by flak

**UNCLAS
OPER//SLAMMER 9401/USACOM2313/EAGLE S
MSGID/MISREP/27FS DOW/4001/DEC//
REF/A/ORDER/9AF/232300ZDEC93/9005/NO
REF/B/INTSUM/ACIN/231100ZDEC93//
MSNID/DCA/9 TACC/1/BB5656//
UNID/27 FS//
ROUTE/242355Z/3436N07825W/250015Z/RP
ECHO//
FLTDTAIL/DINGLE91/KLFI/27/FLGC/24235
TIMESPEC/TRFM: AIRALERT/250005Z/250100Z//
TGTPOS/06/UNKNOWN AIRCRAFT/UR/POSNID/GULF OF MEXICO/OVER WATER/
2335N07925W/000T/630KTS/AGL:50//
RESULT/TGTEL:6 FLOGGER LIKE AIRCRAFT/QTY:4/DESTR/YES/
ATTACK/17ONL12341234//
TARWI/4/8/6/1/D//
JAM/RADAR:2N//
ENINCEPT/2335N07925W/250055Z/AGL:50/NO NATO:FLOGGER/UR/6/6/5/4/AA3//
ACLOSS/DINGLE94/F15C/2334N07859W/250050Z/CHUT/MSLS-RKT-AA//**

Monterey Regional Airport
California, United States. COLEDDPHYY
RP 11GRS 12KVV 78758 70948 DMS 110 10 18.683W 31 22 13.267N

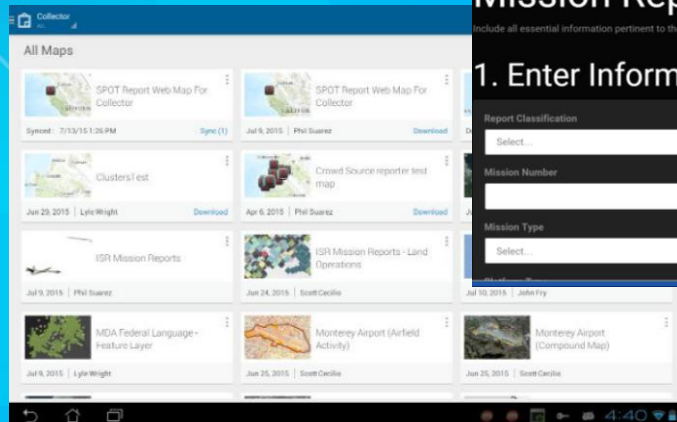
Military Symbology
Military symbology across the platform
Style File
Information Model For Military Features
Community of Practice 252SD
Coordination with DISA
Open Source GITHUB
Extending to NATO

Parts Orders Data Entry
Item: Insulator
Location: Street
Qty: 100
Price: \$4.00
Total: \$400.00

Data Entry

From Data Entry to Situational Awareness

- **Demonstration**
 - **Collector**
 - **GEOFORM**
 - **Operations Dashboard**



Mission Report

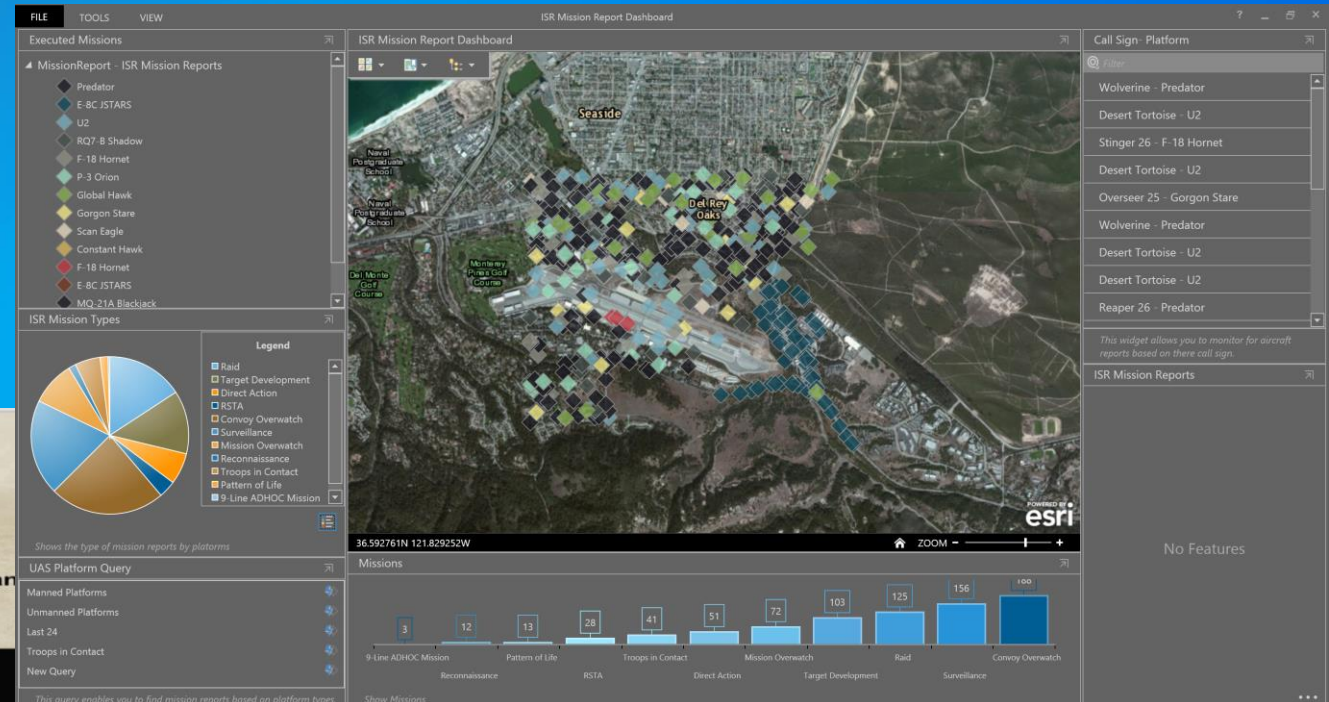
include all essential information pertinent to the execution of this operation.

1. Enter Information

Report Classification
Select...

Mission Number
[Text Input Field]

Mission Type
Select...



How do I make sense of my data?

Normalizing is good, but I already have data!

Microsoft Office

Business Systems

Enterprise Data

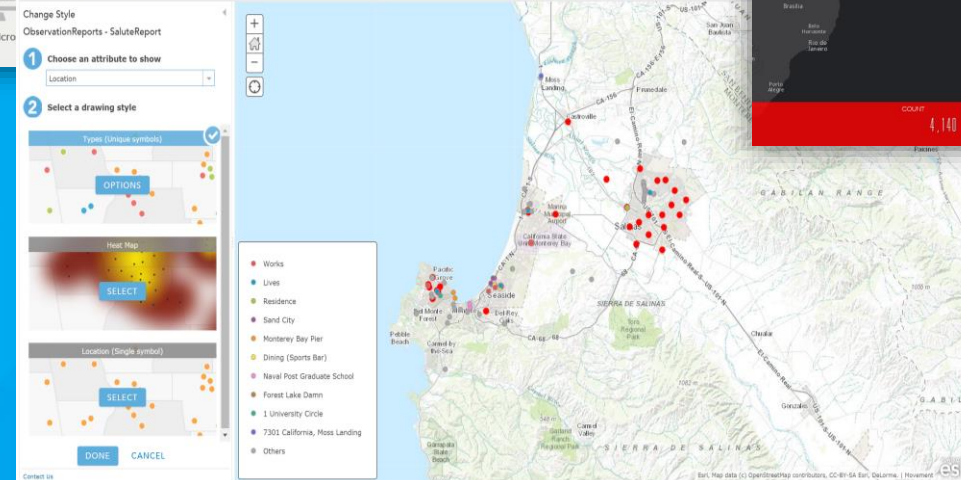
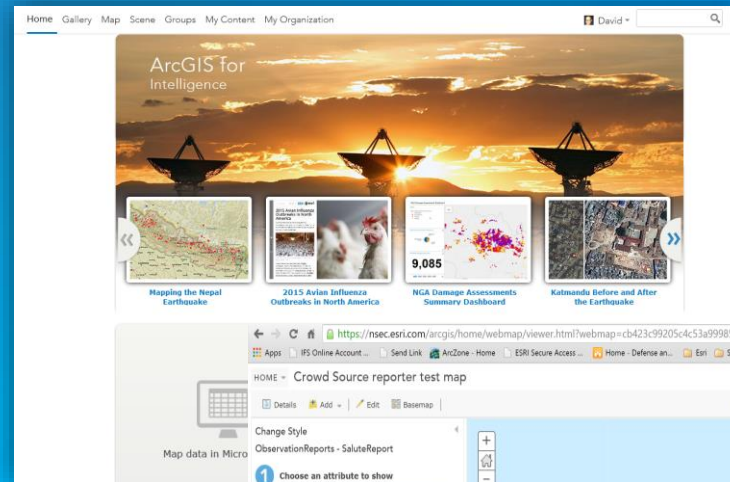
Social Media

Analytics and Smart Mapping...

Making Data Useful

Application Ready Content

- **Demonstration**
 - Portal For ArcGIS
 - Smart Mapping
 - Summary Application



Our World is Changing Rapidly

Flexible Technology Helps us Pivot Quickly

How can I surge
personnel onto a
common issue?

Global Conflict

Border Security

Terrorism

Political Crisis

Civil Unrest

Organized Crime

Adversaries

Known and Unknown

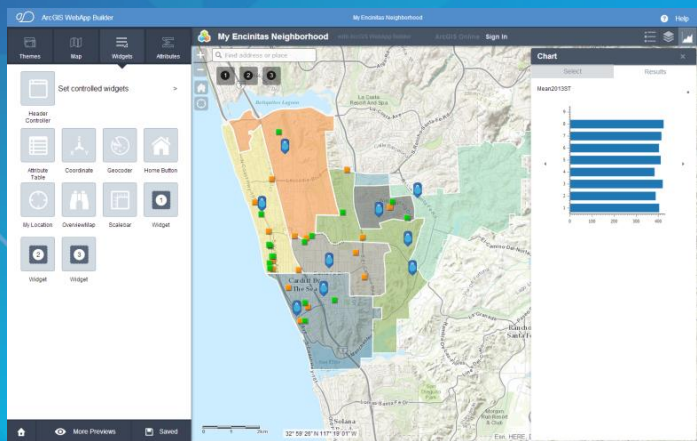
... impacting our National Security

Rapid Deployable Apps

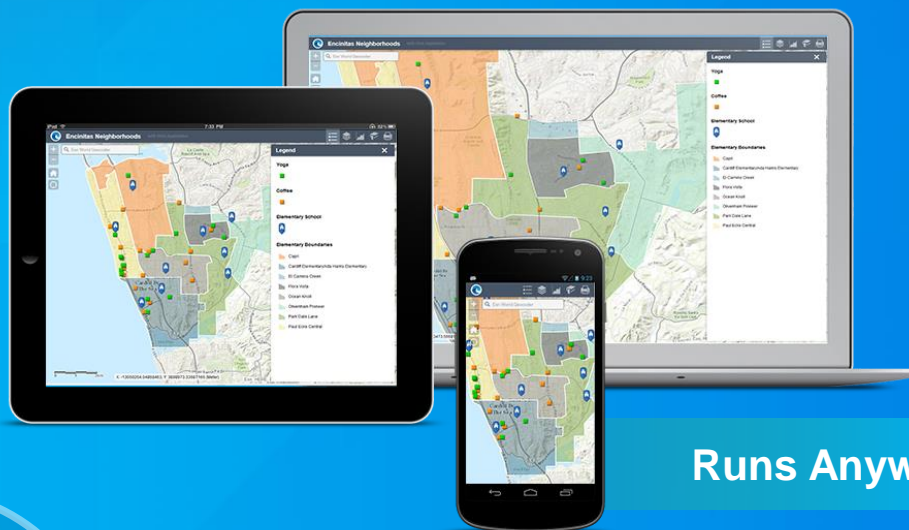
Surge Capability on a Common Problem

Cross-Platform
Framework for Web Apps

WebApp Builder for ArcGIS



Ready-to-Use App



- **HTML5 — JavaScript**
- **Easily Configurable**
- **Server and Online**

Runs Anywhere



30+ Widgets

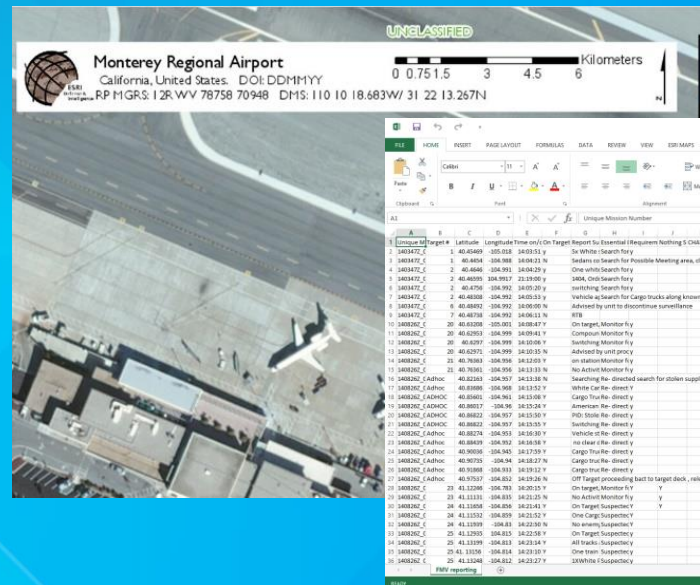
Lower the Barrier, Share the Tradecraft

Communicate the Analysis

Dynamic Environment For Your Assessments

- From Text to Digital Medium

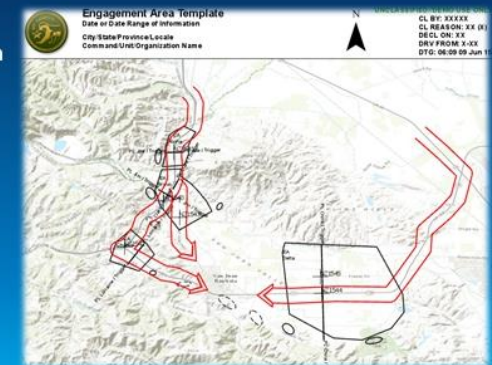
- Easy to Use Apps
- Interactive Assessments
- Comprehensive Products



UNCLAS
OPER/SLAMMER 9401/USACOM2313/EAGLE SLAM//
MSGID/MISREP/27FS DOW/4001/DEC//
REF/A/ORDER/9AF/232300ZDEC93/9005/NOTAL//
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5Z/AGL:50/NONATO:FLOGGER/UR/6/6/5/4/AA3//
07859W/250050Z/CHUT/MSLS-RKT-AA//

Military Symbolology

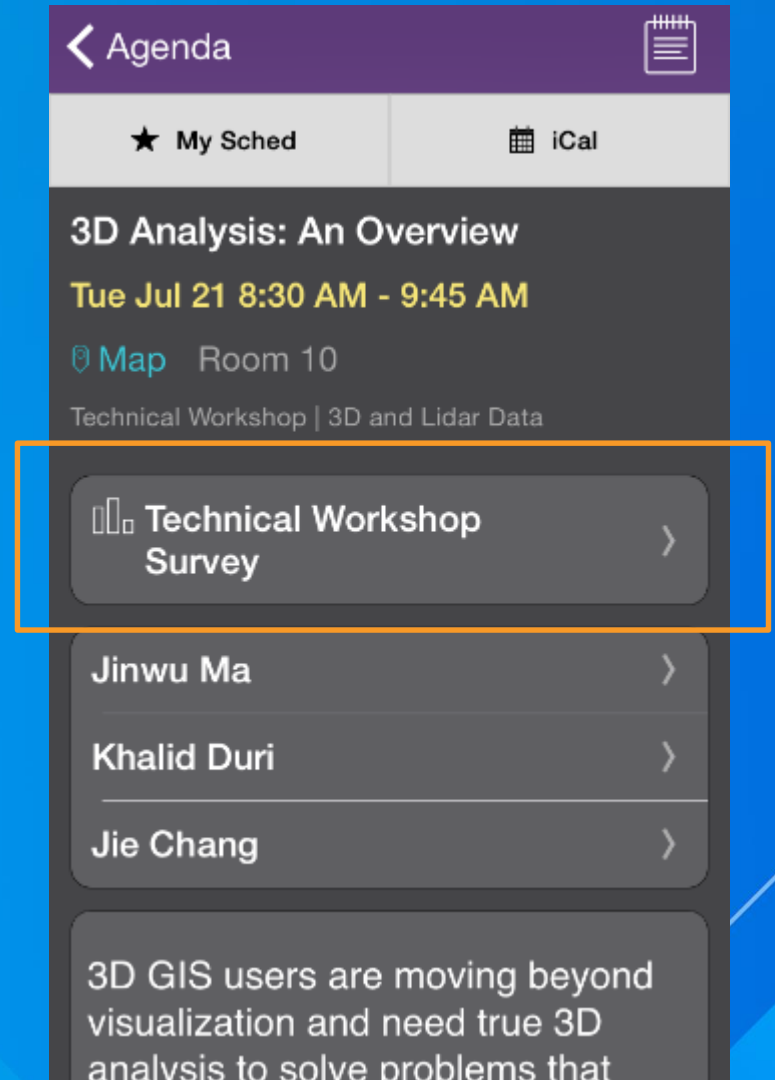
- Military symbolology across the platform
- Style File
- Information Model For Military Features
- Community of Practice 2525D
- Coordination with DISA
- Open Source GitHub
- Extending to NATO



Communicate the Analysis

Thank you...

- Please fill out the session survey in your mobile app
- Select *ArcGIS for Intelligence: Geospatially Enabling the Intelligence Collector*
 - Use the Search Feature to quickly find this title
- Click “Technical Workshop Survey”
- Answer a few short questions and enter any comments



Questions?

Session ID:



Understanding our world.