NATIONAL SECURITY SUMMIT
Establishing a Rapid Geospatial Support Capability

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Malaysian Airlines flight MH17
departed Amsterdam with 298 people,
from 10 countries on board
17 July 2014 at 1014h (UTC)

Whilst cruising at FL330, it disappears from Ukraine and Russian radar at 1319h (UTC)

Malaysian Prime Minister Najib Razak addresses the world, confirming the crash at ~2000h (UTC)

National Security Mission Space

Complexity

Uncertainty

Risk

"For a soldier trained at West Point as an Engineer, the idea that a problem has different solutions on different days was fundamentally disturbing. Yet that was the case."

General Stanley C. McChrystal, 2014

On countering Al Qaeda operations in Iraq in 2003

Agility:

the ability to successfully effect, cope with, and/or exploit changes in circumstances.
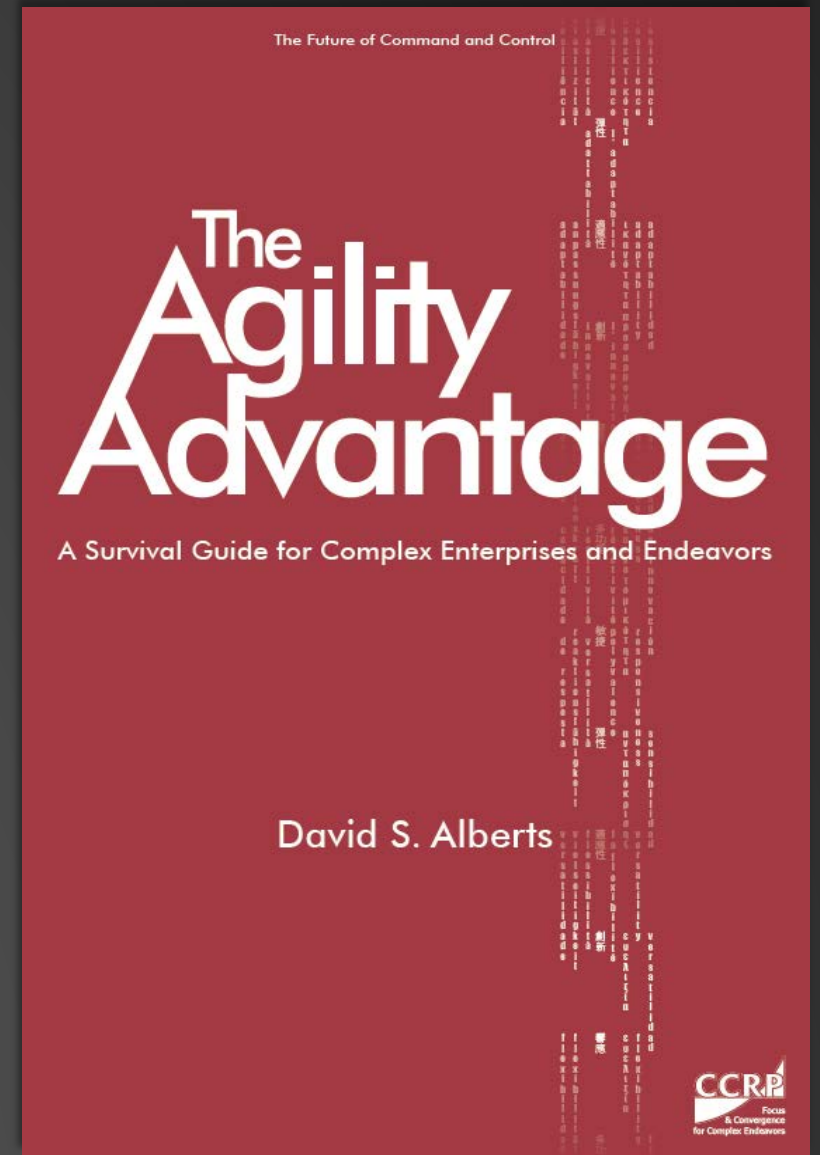
Flexibility
Adaptability
Innovation
Resilience
Robustness
Responsiveness

The Future of Command and Control

The Agility Advantage

A Survival Guide for Complex Enterprises and Endeavors

David S. Alberts

CCRP
Focus
& Convergence
for Complex Endeavors

Rapidly assembled
"Geospatial Support Centre"
Hilton San Diego Bayfront
at 2300h (UTC)

1 Embedded GIS Team

Main Op's - San Diego, USA

In-country Op's – BGSP, Malaysia

Users (multiple agencies, Malaysia)

2 Agile Support to Operations

MISSION SPECIFIC CONTENT

ArcGIS

- **Foundation Data**
- **Application Templates**
- **Organizational Structure**
- **Publically Available Information**

- **Continuous User Engagement**
- **Hourly Sprints (initially)**
- **User Driven Development**
- **Continuous Content Management**

- **Identify Stakeholders**
- **Team structure**
- **ArGIS Online Config**
- **Order Imagery**
- **Security**

- **Initial User Needs**
- **Identify Essential Info**
- **New App Configuration**
- **Develop COP**
- **Content Management**

- **Refine COP**
- **App Release**
- **New App Configuration**
- **Content Management**

MH17 Response

Operations View and Situational Awareness

Social Media and Languages Spoken

Malaysian Airlines flight MH17 Tracking

Passengers, Crew, Families, Embassies and Missions

Malaysia Airlines flight 17 (MH17 or MAS17) was a scheduled passenger flight from Amsterdam Schiphol airport to Kuala Lumpur airport. The Boeing 777-200ER operating this service on 17th July 2014 disappeared from radar at 13:15 hours UTC, and crashed in the Ukraine.

This portal presents historical, contextual, geospatial and briefing materials to assist in the response and understanding of the incident. It is owned by the Defence Geospatial Division (BGSP), Department of Survey and Mapping Malaysia (JUPEM).

Surface to Air Missile Intelligence

Q Filter

- Approximate area of missile launch

Subsequent Incidents

Q Filter

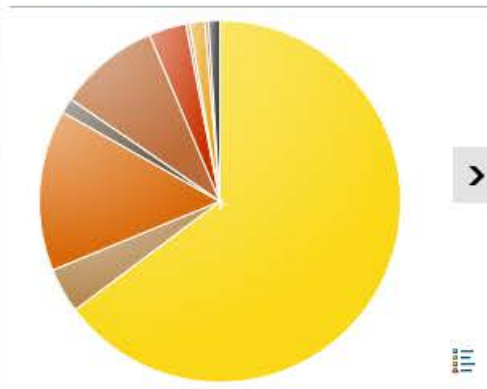- Terrorists block exit of victims bodies on train.
  July 20, 2014

Debris and Victims

- Debris next to road, south of Hrabove
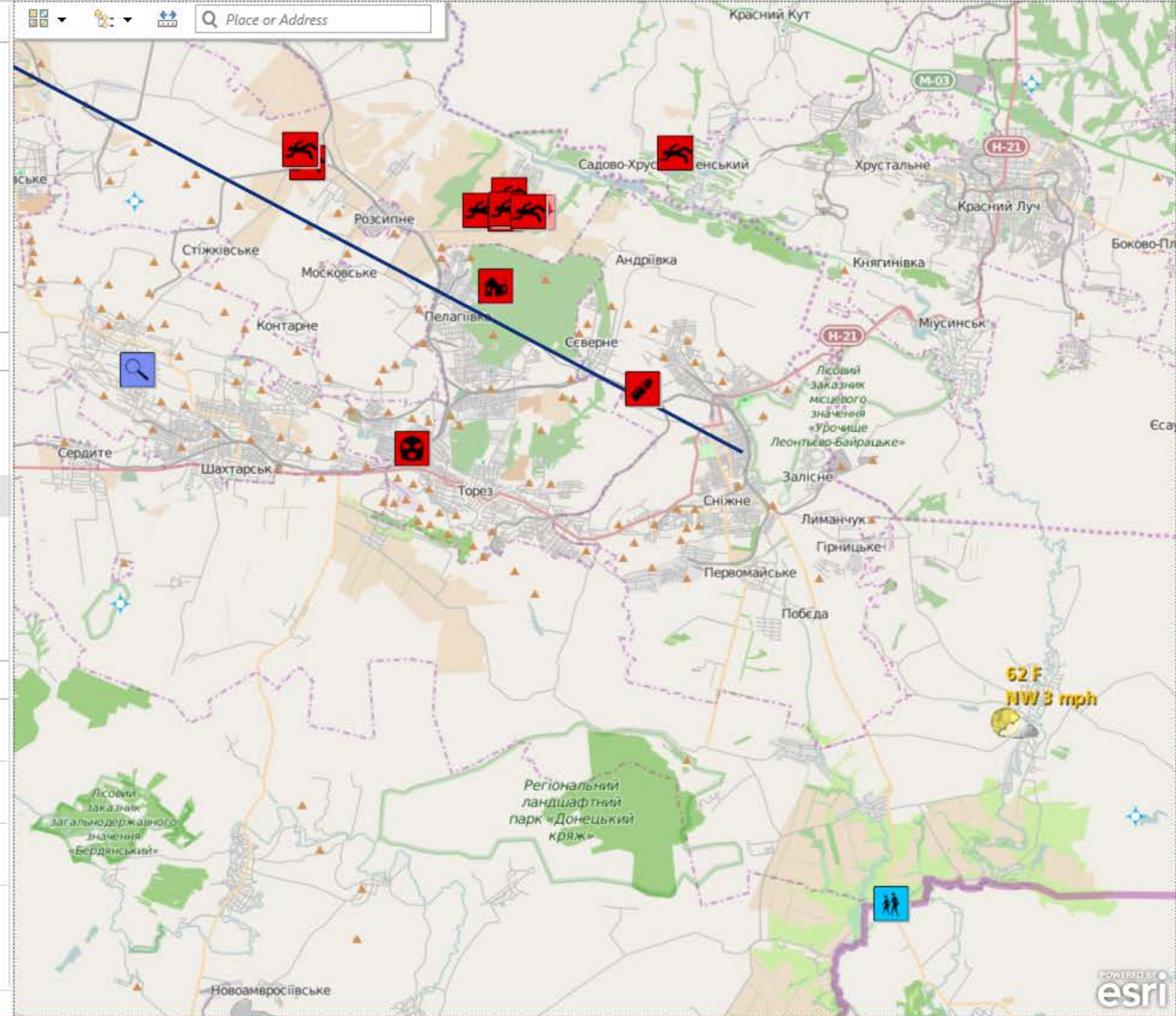- Major Debris Site, Wreckage, Fire

Victim Count

298

Victim Nationality

Flight Timeline

- 9M-MRD debris falls near Hrabove, Donetsk Oblast
- Ukraine ATC reports lost contact with 9M-MRD
- 9M-MRD request FL350, Ukraine ATC assigns FL330

Place or Address

62 F
NW 3 mph

ZOOM

POWERED BY esri

3 Content Management

Home   Gallery   Map   Scene   Groups   **My Content**   My Organization

Esri

My Content

Folders

NEW   DELETE

📁 mh17_esri (Home)
📁 AERO
📁 DEMOGRAPHICS
📁 DIPLOMACY
📁 IMAGERY
📁 METOC
📁 MH17
📁 **OPERATIONS**
📁 SOCIAL MEDIA
📁 STORYMAPS
📁 UKRAINE

Show

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Maps
Layers
Scenes
Apps
Tools
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+ Add Item ▾   Create ▾   Share   Delete   Move ▾   Change Owner

	▲ Title		Type	Modified	Shared
☐	Debris Range Rings	▾	Tile Layer	Jul 19, 2014	Organization
☐	Debris_Range_Rings	▾	Service Definition	Jul 19, 2014	Not Shared
☐	Debris_Range_Rings	▾	Feature Layer	Jul 19, 2014	Not Shared
☐	Map_Notes	▾	Feature Layer	Jul 21, 2014	Organization
☐	Map_Notes	▾	Service Definition	Jul 21, 2014	Not Shared
☐	Operations in Ukraine	▾	Web Map	Jul 23, 2014	Organization
☐	Operations View and Situational Awareness	▾	Operation View	Jul 22, 2014	Organization
☐	Situational Awareness and Operations View	▾	Web Mapping Application	Jul 22, 2014	Organization
☐	Situational Awareness and Operations View	▾	Web Map	Jul 22, 2014	Organization

1 - 9 of 9 results

Q Zip Code, city, etc.

Legend | **About** | **Layers**

Legend

Instagram

Flickr photos filtered by: mh17

Twitter tweets filtered by: mh17

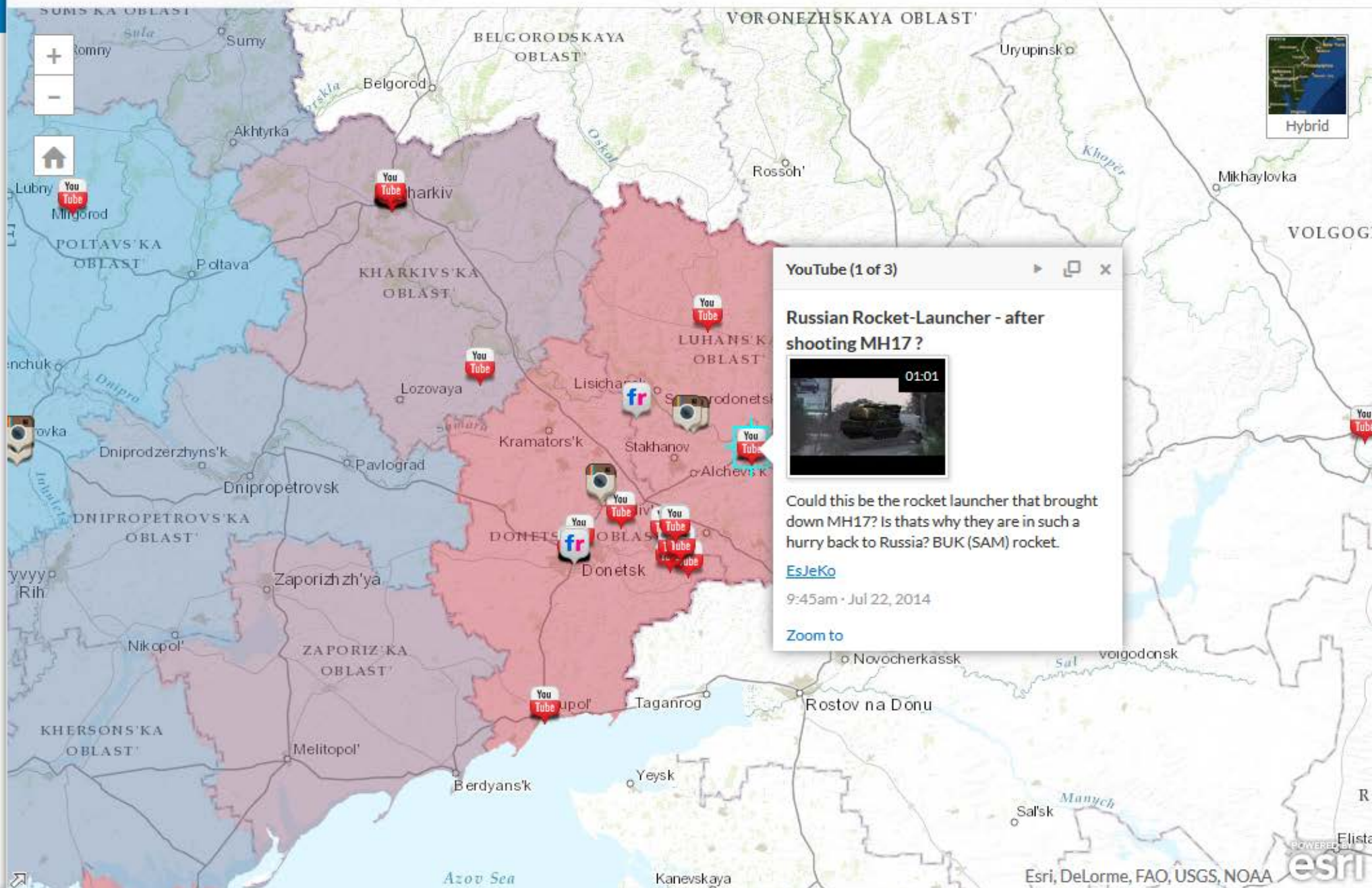**YouTube videos filtered by: mh17**

Russian Language Spoken (% by province or oblast)

< 11%

11% - 37%

37% - 64%

64% - 90%

> 90%

YouTube (1 of 3)

Russian Rocket-Launcher - after shooting MH17 ?

01:01

Could this be the rocket launcher that brought down MH17? Is thats why they are in such a hurry back to Russia? BUK (SAM) rocket.
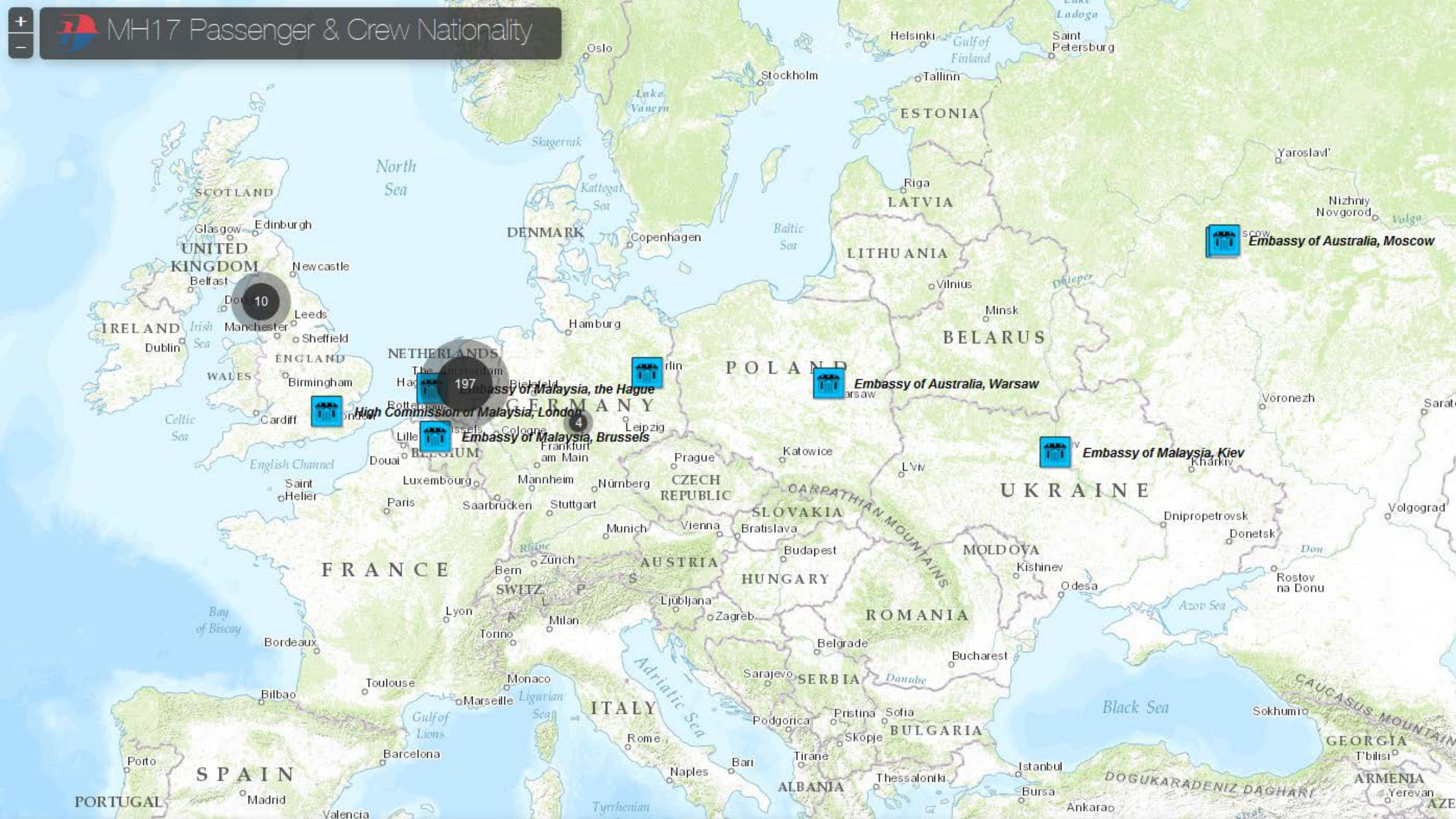
EsJeKo

9:45am · Jul 22, 2014

Zoom to

Esri, DeLorme, FAO, USGS, NOAA

4 Continuous User Engagement

5 Mission Specific App's

Post-Incident Imagery and Analysis

Presents pre-incident and post-incident imagery. Image analysts can examine the imagery for debris and other useful intelligence.

Victims

Roadblock

Roadblock

Investigation

Investigation

Hrabove
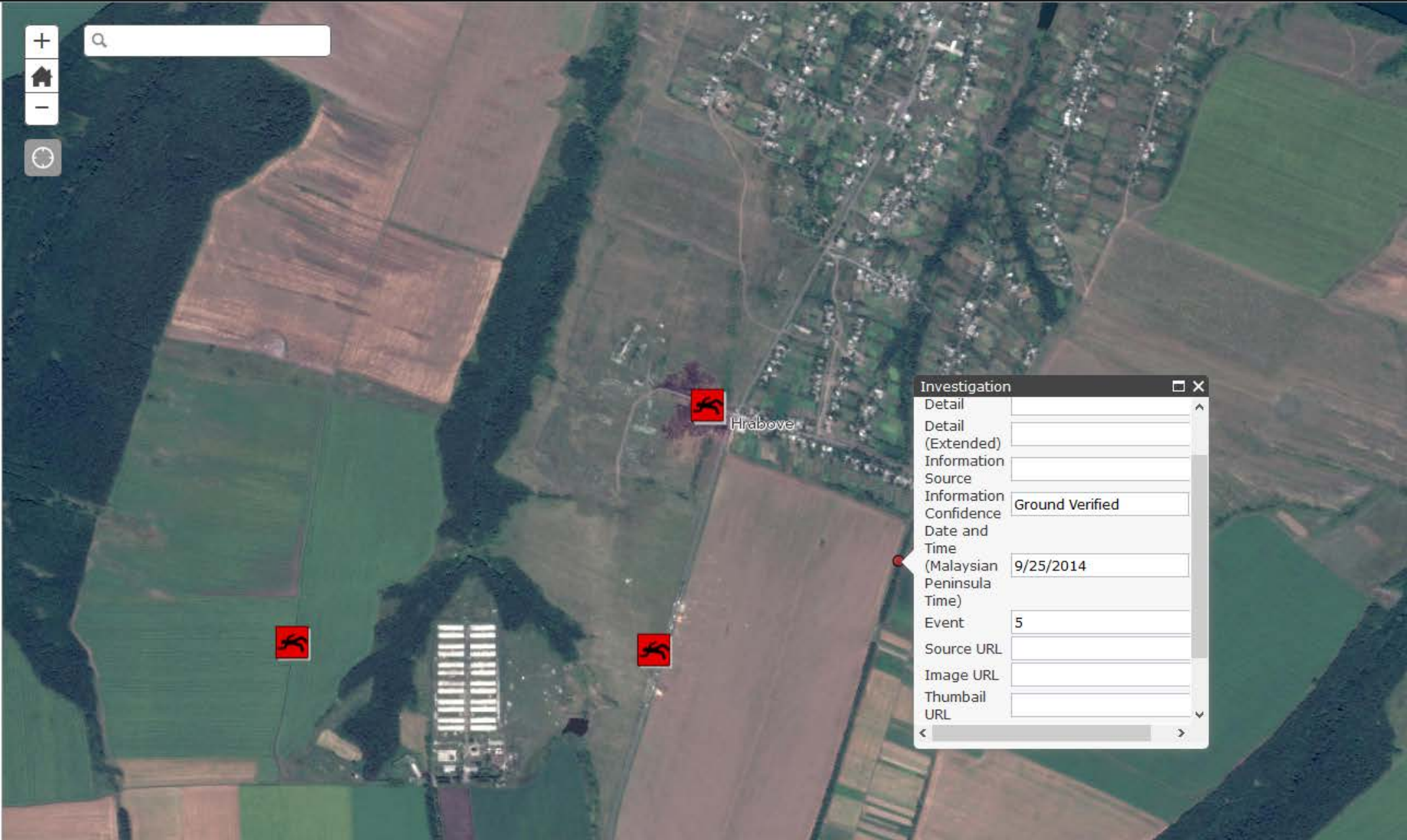
Investigation

Detail	
Detail (Extended)	
Information Source	
Information Confidence	Ground Verified
Date and Time (Malaysian Peninsula Time)	9/25/2014
Event	5
Source URL	
Image URL	
Thumbail URL	

6 Empower the User

Crisis in the Crimea: The Showdown Between Ukraine and Russia

Following a change of government in Ukraine, Russian forces effectively seized control of the Crimea, an autonomous republic with historical ties to Russia. Explore locations and events in Crimea, and language differences in Crimea and throughout Ukraine.
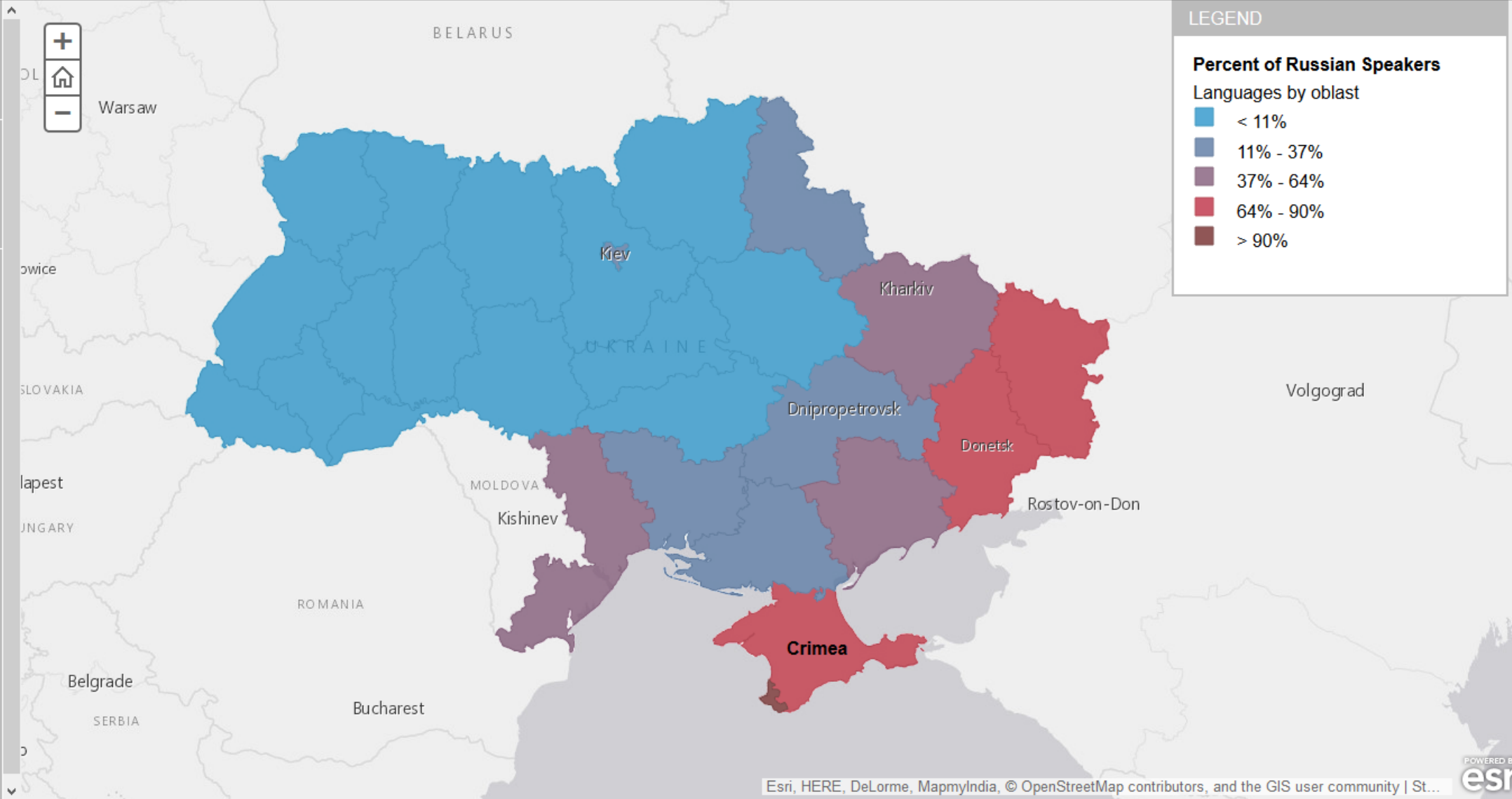
1 Crimea: geography and hot spots

2 Crimea: Russian majority, but diverse ethnicity

3 Ukraine: Russians in the east and south

Ukraine's 2001 census--the most recent conducted by the nation--reveals a dramatic difference between eastern Ukraine, where Russian-speakers predominate, and its western regions, where Ukrainian is the primary language and allegiances favor European Union over Russia.

Tap the map for additional detail.

LEGEND

Percent of Russian Speakers
Languages by oblast

- < 11%
- 11% - 37%
- 37% - 64%
- 64% - 90%
- > 90%

BELARUS

Warsaw

Kiev

Kharkiv

UKRAINE

Dnipropetrovsk

Donetsk

Volgograd

Rostov-on-Don

SLOVAKIA

MOLDOVA

Kishinev

Crimea

ROMANIA

Belgrade

Bucharest

SERBIA

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Search for Layers

Find: language   **GO**

In: ArcGIS Online   ▾

☐ Within map area

626 Results Found

Trilhas em Unidades de Conservação_IBGE-INEA (Feat
by SIG_CRHBG   Add

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by SIG_CRHBG   Add

BW_SF_Roads (Features)
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Housing (Features)
by ISRAEL_CBS_GIS   Add

Subestação de Energia_EA (Features)
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Sistema Viário_IBGE-INEA (Features)
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EnterpriseZone (Features)
by alexbaker   Add

Label Route 180 (Features)
by LynnatUMM   Add

LPS OSNI 50k Vector Water Text (Features)
by SpatialNI_Admin   Add

L Tsunami Inundation Scenario
by Employment   Add

Toponímias_IBGE-INEA (Features)
by SIG_CRHBG   Add

BW_SF_Streams (Features)
by geog467.redteam_JMU   Add

Student_Demographics (Features)
by styxdvr   Add

DONE ADDING LAYERS
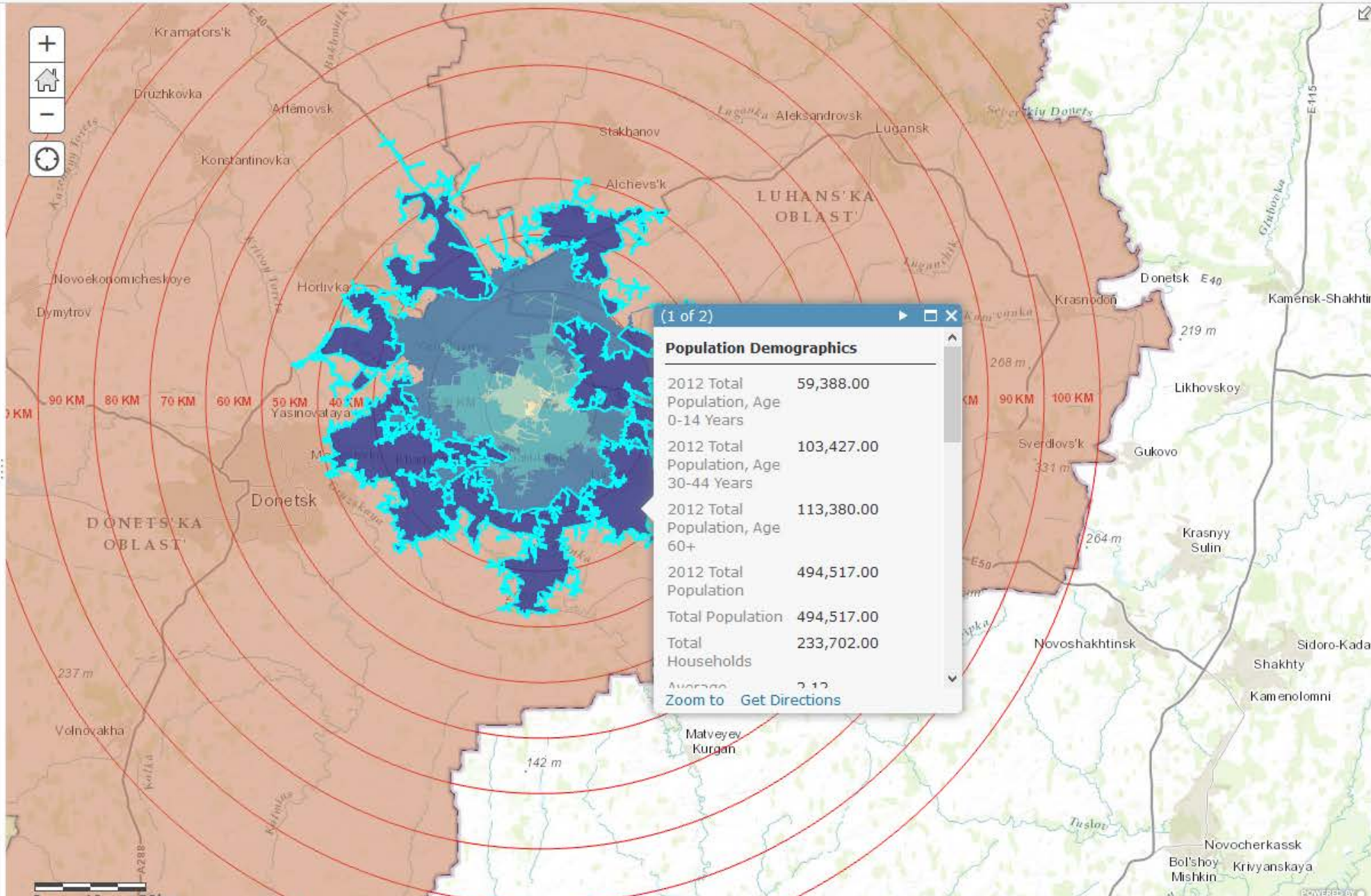
(1 of 2) ▶ ◻ ✕

Population Demographics

2012 Total Population, Age 0-14 Years	59,388.00
2012 Total Population, Age 30-44 Years	103,427.00
2012 Total Population, Age 60+	113,380.00
2012 Total Population	494,517.00
Total Population	494,517.00
Total Households	233,702.00
Average	2.12

Zoom to   Get Directions

" Without agile leaders who can recognize when things are not going as planned, challenge their own preconceptions, change their own behaviours, and shape those of their subordinates, it will be impossible to increase the agility of organizations or forces."

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Understanding our world.