

Effective coordination saves lives, but it depends on having accurate information.



ArcGIS Survey123 is a form-centric data-collection and survey solution by Esri that lets organizations *design, deploy, collect, and analyze surveys* through web and mobile apps (even offline), with support for smart forms, conditional logic, attachments, and real-time reporting and mapping. It is used to replace paper forms with digital workflows where geography and structured data matter.



INSARAG (International Search and Rescue Advisory Group) is a *United Nations OCHA advisory body* that sets international standards for *Urban Search and Rescue (USAR)* coordination and methodology in the aftermath of disasters like earthquakes and building collapses. INSARAG brings together national and international USAR teams to work under common procedures and tools during emergency response missions

PETER WOLFF, CHAIR “INFORMATION MANAGEMENT WORKING GROUP”

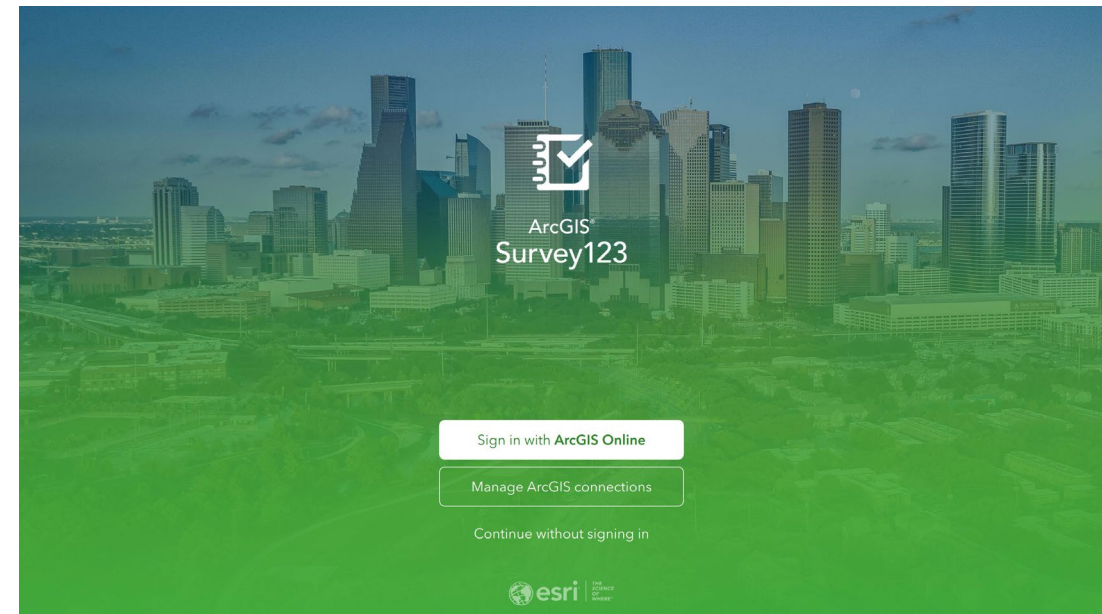
- **Chemist by education**
- **50 yrs. of service volunteering Federal Agency for Technical Relief (THW)**
- **Liaison Officer (UCC) HUSAR Team THW**
- **INSARAG Team Leader Classifier and Mentor**
- **INSARAG Chair IMWG**
- **Member Earthquake Response Exercise WG**
- **UCC/USAR EXCON Support on UN/EU**
- **UCC Lead instructor UN/EU/INSARAG**
- **UCC ToT instructor**
- **Several EU Projects like “CURSOR”, “SYNERGISE”**



How ArcGIS Survey123 is used *by* INSARAG

INSARAG's **Coordination & Management System (ICMS)** incorporates Esri technology, including ArcGIS Survey123, as part of its *information management tools* for emergency response coordination. In this context:

- Survey123 serves as the **digital replacement for paper-based INSARAG forms**, enabling field teams to collect standardized operational data (e.g., triage results, worksite reports, extraction and victim information, resource requests) on mobile devices during USAR deployments.
- Field responders download INSARAG-specific standard Survey123 forms, *complete them electronically*, and submit the data back into the ICMS system.
- Collected information is *automatically fed into dashboards and mapping tools* that central coordination units use to monitor the ongoing situation, support decision-making, and share a common operational picture across teams and command



INSARAG Survey123 forms – what they are and how they're used

INSARAG has taken its **official paper forms** (from the INSARAG Guidelines & Methodology) and rebuilt them as **standardized ArcGIS Survey123 forms**. These are not generic surveys; they are tightly aligned with INSARAG doctrine.

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Worksite Triage

Worksite Triage Form

Used during assessment to identify workites with rescue opportunities

INSARAG Preparedness - Response

Location Information

note

E1. Worksite ID

The Worksite Sector, Worksite Number and Suffix letter combined

Worksite Sector *

Worksite Number *

Suffix letter (optional)

Use only if a large building has been segmented into smaller elements

Key technical features of the Survey123 forms

- GPS-enabled (automatic location capture)
- Offline capable (critical for disaster zones)
- Dropdowns & controlled vocabularies (INSARAG terminology)
- Conditional logic (fields appear only when relevant)
- Photo & file attachments (damage, markings, hazards)
- Time-stamped & user-attributed

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Team Fact Sheet

INSARAG Preparedness - Response

Team Information

A0. Team ID

Olympic code and National team number combined

Olympic Country code *

Three letter Olympic Country code please select

National team number *

National team number: 01, 02, 03 etc for classified teams; 10, 11, 12 etc for unclassified teams.

A1. Team Name

Team name as known internationally or domestically

A2. Number of Persons *

Total number of persons deployed

Worksite / Assessment forms

Initial worksite assessment
Structural damage classification
Hazard identification
Accessibility and safety status

Search & Rescue activity forms

Search progress reports
Rescue/extrication reports
Victim location & status (coded, not personal data)
Marking and clearance status

Coordination & management forms

Team status reports (arrival, operational, demobilization)
Resource and capability requests
Daily situation reports (SitReps)
Sector or division reporting

Logistics & support

Equipment status
Medical support needs
Team welfare and sustainability inputs

■ Step 1: Deployment & setup

- INSARAG Secretariat / RDC / UCC sets up the **INSARAG Coordination & Management System (ICMS)**.

- Survey123 forms are shared with:

- International USAR teams
- OSOCC / UCC staff
- Sector coordinators

Teams install **Survey123 mobile app** or access web forms



■ Step 2: Field data collection

- USAR teams complete Survey123 forms **on site**, often offline.

- Examples:

- A squad assesses a collapsed building → submits a *Worksite Assessment* form.
- After extrication → submits a *Rescue Report*.
- Sector leader submits a *Daily Status Update*.

Once connectivity is available, data syncs automatically.



■ Step 3: Central data aggregation (ICMS core)

Submitted Survey123 data flows into:

- ArcGIS Online / Enterprise**
- INSARAG ICMS database**
- Operational layers** (points, polygons, tables)

No re-typing. No scanning paper. No delays.



■ Step 4: Visualization & decision support

The ICMS instantly updates:

- Live operational maps** (worksites, hazards, cleared areas)

- Dashboards** showing:

- Active worksites
- Teams deployed
- Victims located/rescued
- Gaps and unmet needs

- Situation reports** auto-generated from survey data

This creates a **Common Operational Picture (COP)** shared by:

- UCC / OSOCC
- INSARAG Secretariat
- Team leaders
- UN OCHA coordination



■ Step 5: Coordination & tasking

Based on ICMS outputs:

- Sectors are re-prioritized
- Teams are reassigned
- Redundant efforts are avoided
- Decision-making is evidence-based and near real-time

Why this matters (INSARAG perspective)

Before Survey123:

- Paper forms
- Delayed reporting
- Manual consolidation
- High error risk

With Survey123 + ICMS:

- ✓ Standardized global reporting
- ✓ Faster coordination
- ✓ Better situational awareness
- ✓ Stronger accountability & traceability

This is why Survey123 is considered a core digital backbone of modern INSARAG operations.

