

INSARAG Coordination & Management System (ICMS)

Team Based Field Operations Guide/Technical Manual



esri



ICMS – Team Guide

Introduction

When to use	Use this guide to manage and perform the USAR Team based functions during USAR operations using ICMS
Role	USAR Team Leader/USAR Command Point Staff/USAR Field Staff/
Contents	USAR Team Function using ICMS Workflow INSARAG ICMS HUB Preparation for deployment Applications for use by teams INSARAG HUB Survey123 ArcGIS Explorer Operations Dashboard Dashboards Summary TAB RDC/TEAM TAB Amend Team status Triage Actions Prioritise Worksites Assign Worksites Operations Logistics Photo Gallery Filter Use Stacked TABS Save/print Forms and reports

Access to ICMS Functions

Access to ICMS functions is the INSARAG HUB. (<https://icms-insarag.hub.arcgis.com/>)

All functions in this manual are available from the HUB with a valid login and password.

Any questions or queries can be sent to IMWG on: insarag.imwg@gmail.com

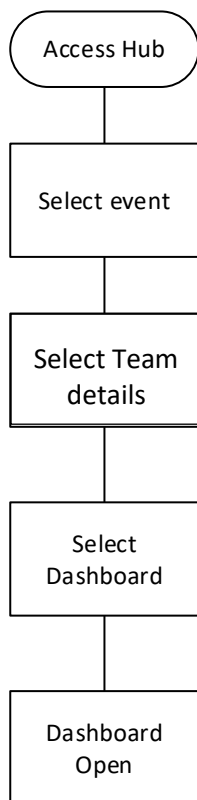
USAR Team Functions using ICMS

ICMS is a multi-tiered system, where different groups and functions work together in different areas of the system to produce an information management system that enhances situational awareness and as a result improved coordination and outcomes for affected communities.

The team functions for Stage 1&2 are primarily focused around Preparation of the team-based systems for deployment, accessing the system, using the INSARAG HUB, infield data collection, Command Point (CP) monitoring and quality assurance methodology (Sector Coordination ref UCC ICMS manual)

ICMS has two different login systems and it is important to ensure that the “TEAM LOGINS” are used for all team-based activities.

Workflow



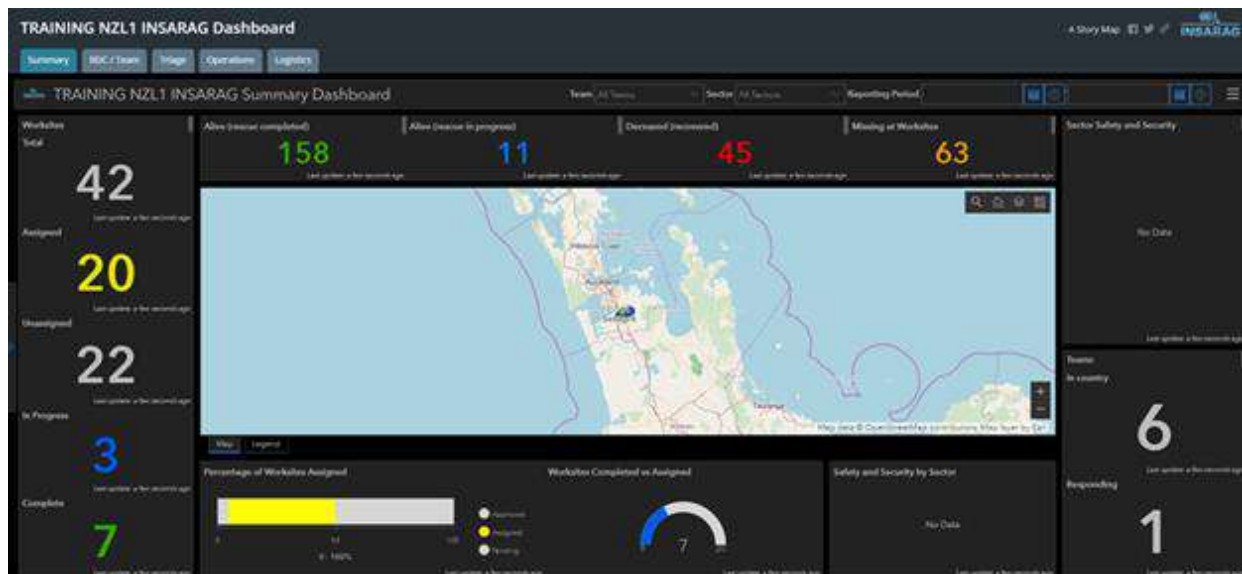
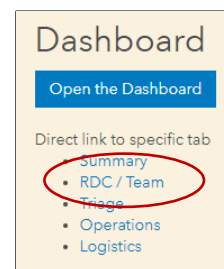
Either from VO
Or via a direct link



Team Access is required



Or select TAB required



Other Applications

All other applications can be accessed from the INSARAG HUB from separate links on the event page.

INSARAG ICMS HUB

The INSARAG HUB is a common landing page that has a hard-wired link from the Virtual OSOCC (VO) (TBC) and a link from any incident that is created on the VO: This link will be in the ICMS sub - section of the UCC section on the VO and may be emailed along with logins and passwords to Teams responding.

The INSARAG HUB will provide access to a main landing page that will contain links to everything from Events through to training material. In this case we are focusing on an event so the process will be accessing ICMS via a secure login for any specific event. Note each event will have a different login and password and you will only be able to access events and applications that you have been authorised for.

The INSARAG HUB is managed by IMWG.

When an event takes place that has / or is very likely to have USAR teams responding IMWG will create an event and associated ICMS functions and Dashboards.

Link: <https://icms-insarag.hub.arcgis.com/>

1. Landing Page

2. Active events

3. Click Team Details

4. Dashboard

5. QA Application

6. Survey123 HUB

7. Explorer

8. QR Links to Forms

Team applications are all accessible from the HUB.

UCC logins provide a different access than the team logins (ref UCC FOG)

Preparation for Deployment

A critical factor when preparing teams to use ICMS is to ensure that the teams are using the correct forms for the event they are attending.

ICMS creates a completely new set of dashboards and forms for each new event, so teams must ensure that they clear out all forms and maps from the two applications that they will use for field operations, Esri – Survey 123 (S123) and Esri - ArcGis Explorer.

This manual will show a number of ways to get the new forms, but it is critical that staff responsible for the deploying of tablets or phones ensure that they are cleared of all previous forms and maps.

Applications for use by TEAMS

Team based operations will make use of the following Esri Applications (UCC and RDC have access to other functions – ref UCC ICMS Field Guide/Manual)

1. Survey123
2. ArcGIS Explorer
3. Operations Dashboard (View only)
4. Esri HUB
5. Survey123 web application
 - a. Quality Assurance
 - b. Report printing and management

Survey123

What is it?

Survey123 is in essence a digital replacement for paper-based forms. It allows a user to collect data on a variety of categories and then link that collected information back to a dashboard where decision makers can then use that information to make more informed decisions.

How to use it

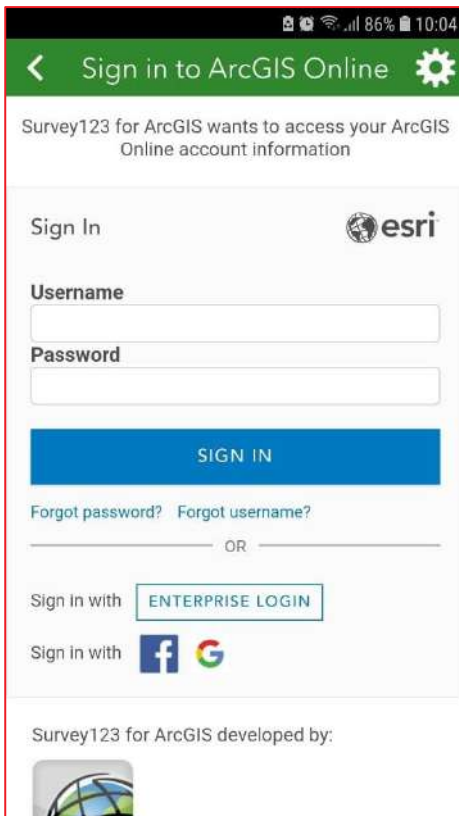
Survey123 has been designed to be very simple to use. Firstly, the Survey123 app should be downloaded from the app store for your device (Apple Store for iOS devices and Google Play store for Android).



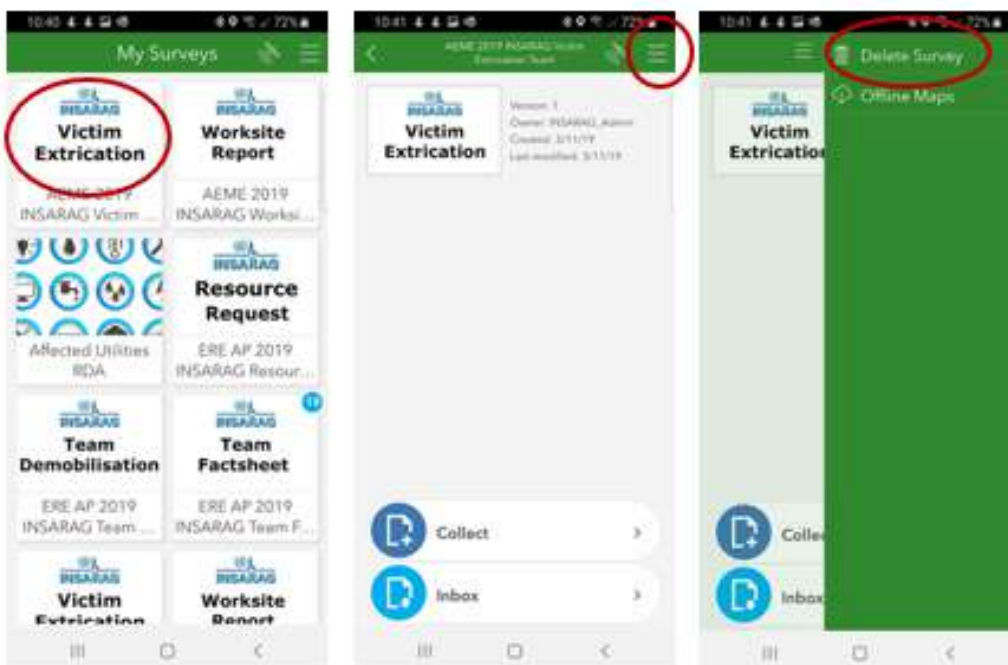
Survey123 for ArcGIS
Esri



Next, log into the app using the credentials provided for your team (ensure you login with the team logins.)



Before you download new surveys, it is very important that you delete any surveys on the device.) This is to prevent team members using a form not allocated to the event and having information not being sent to the event dashboard

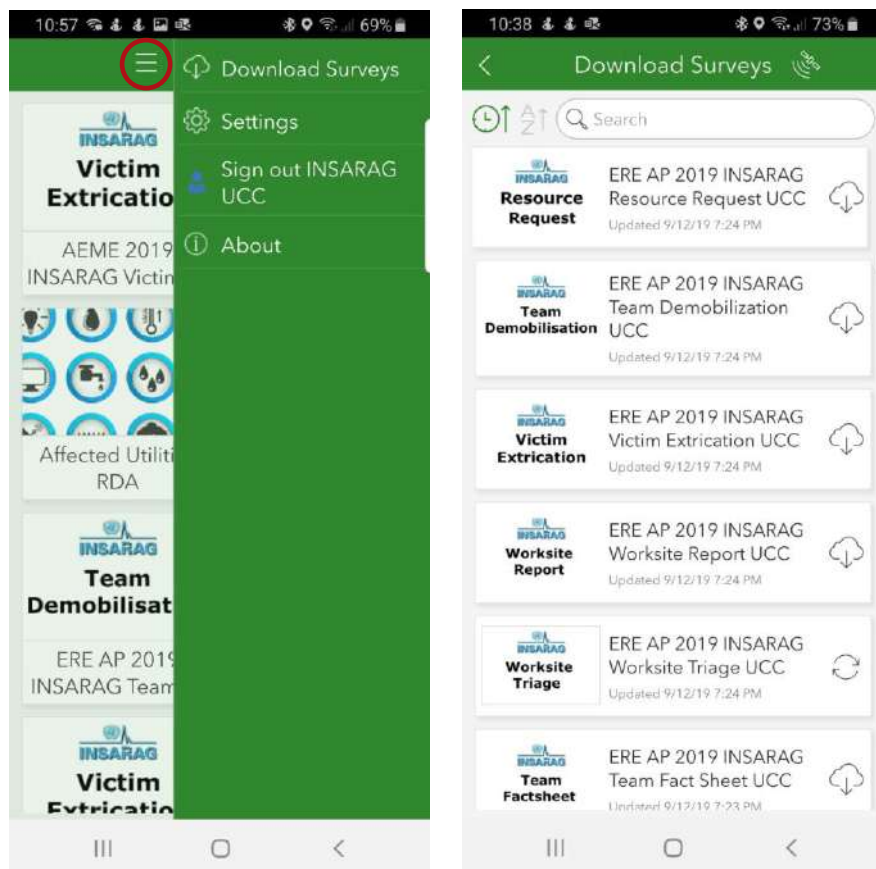


Delete Surveys

1. Select form to delete
2. Click on 3 bars (or hamburger button)
3. Delete survey
4. Repeat for all surveys on device until My Surveys page is empty

Downloading new surveys

Once logged in, tap on the three bars in the top right corner and download the required forms by tapping on the download icon on each form.



All events have a completely new and specific set of forms and dashboards.

Note: QR Codes in the INSARAG HUB provide a simple and fool proof method of ensuring teams download the correct form: Simply point the device camera or QR scanner at the QR code and the form will download to the device.

INSARAG Forms

Here is some details on how to use the Survey123 forms..



Team Fact Sheet



Team Demobilisation



Worksite Triage



Worksite Report

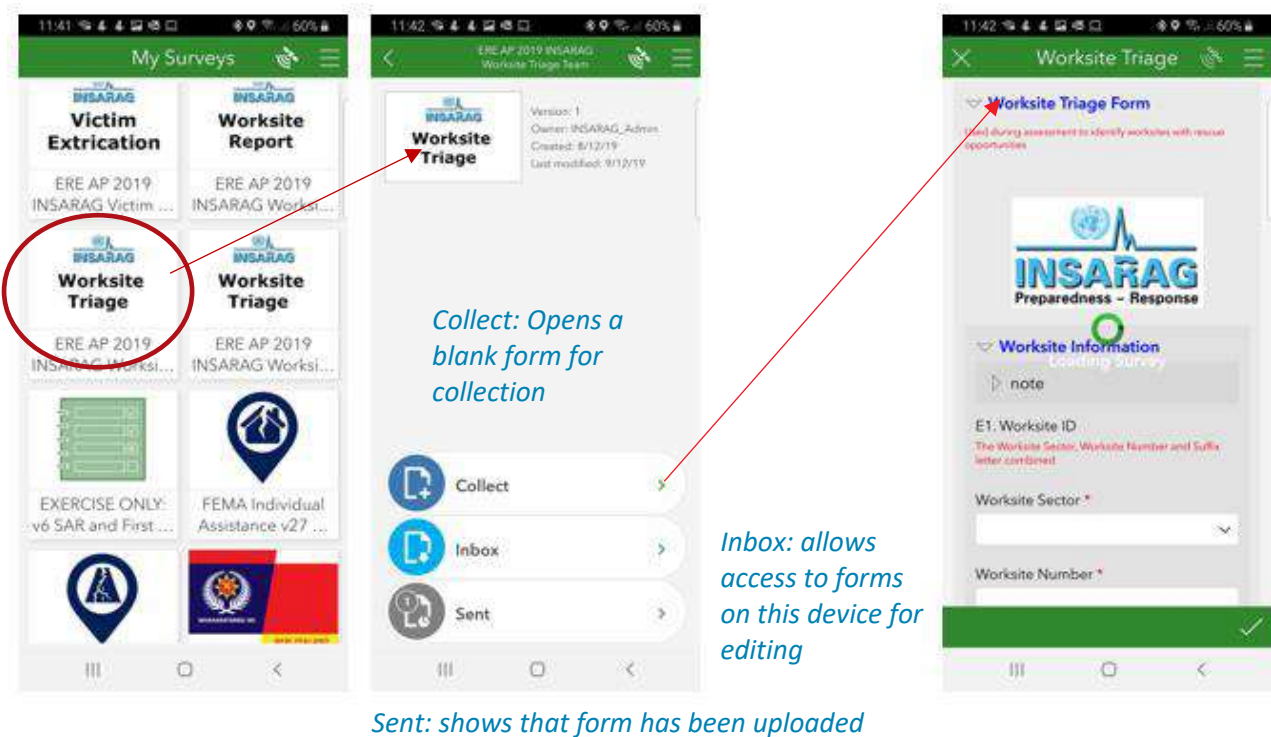


Victim Extrication



Resource Request

With the forms downloaded, users can then select an appropriate form, fill out the fields within the form and submit the completed form. (The triage form is the only form that should be accessed S123 directly all other should be accessed via ArcGIS Explorer



Once a form is completed, users can either reopen the submitted form to review or make changes or can create a new form to complete.

Arc GIS Explorer

What is it?

Explorer for ArcGIS is a mobile app that allows users to see a map either remotely or at their location using their mobile devices GPS.

It also allows users to view information about land parcels such as boundaries, building footprints and addresses, as well as allowing them to search for places or features within the map.

Explorer also links with both Survey123 and Dashboard.

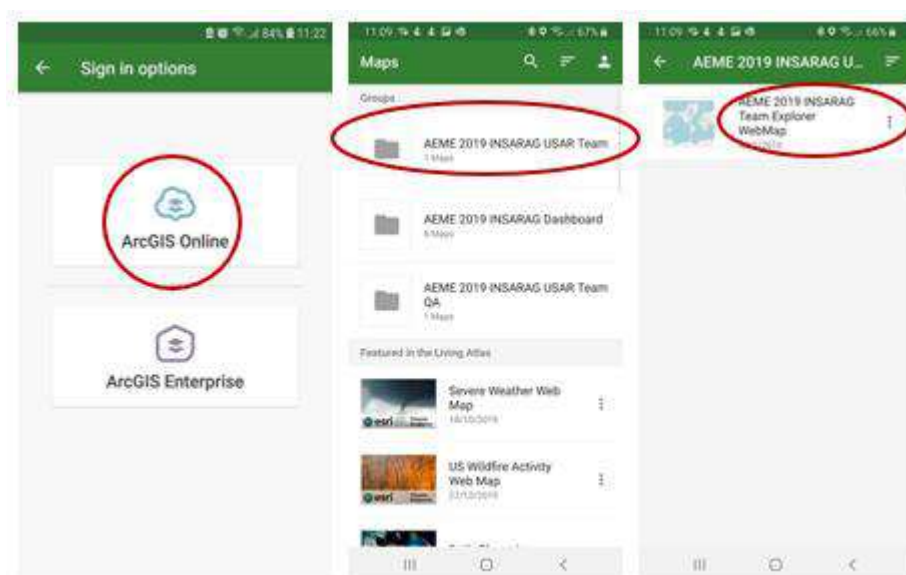
How to use it

Firstly, the Explorer for ArcGIS app should be downloaded from the app store for your particular device (Apple Store for iOS devices and Google Play store for Android).

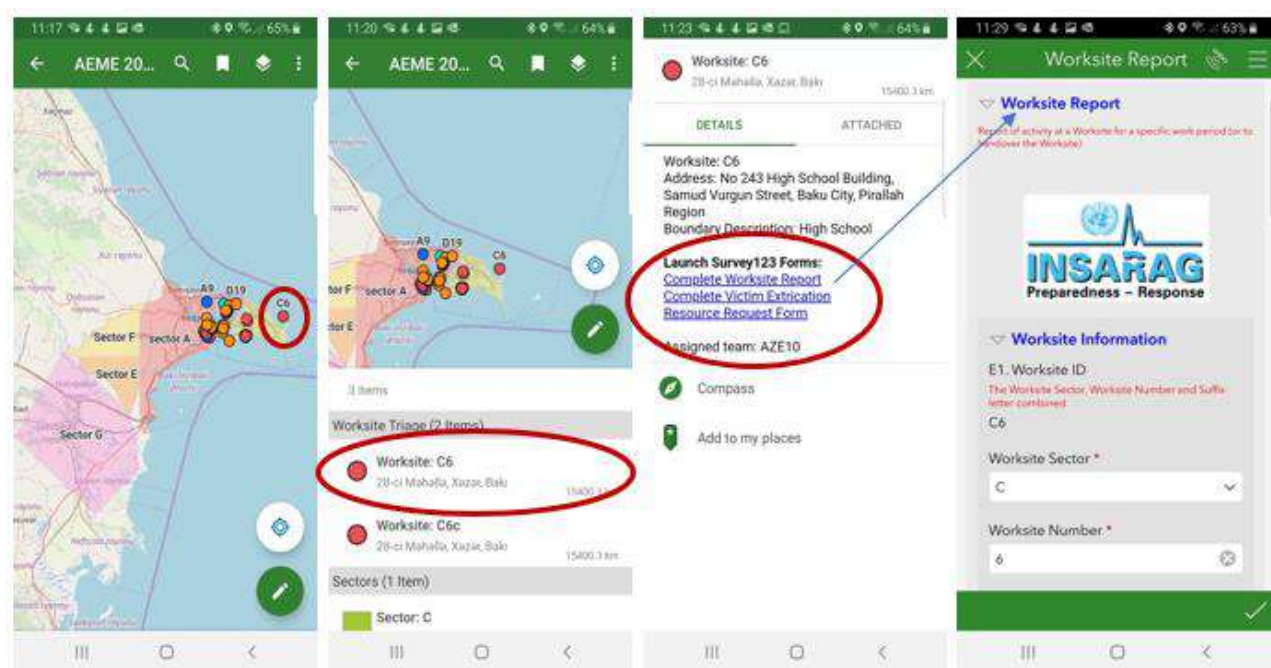
Once downloaded; Tap on the Explorer for ArcGIS icon to open the application.



1. When prompted, choose **ArcGIS Online**
2. Select **Team maps**
3. Select **Team map**



Zoom into the desired area on the map. If sectors have been designated, these will be displayed on the map. If Worksites have been identified they will appear on the map as dots.



1. Once zoomed in to event location, select your assigned worksite (C6)
2. Depending on the level of zoom , an info screen will give options to select (C6)
3. Depending on the work being completed you will then select the form you wish to use (Worksite)
4. On clicking the blue worksite link (example) a pre populated S123 form will open
5. Complete form in S123 as per normal

****Note:** Pre-populated data comes from the triage form and so there is no need to re-enter any data already collected.

Dashboards

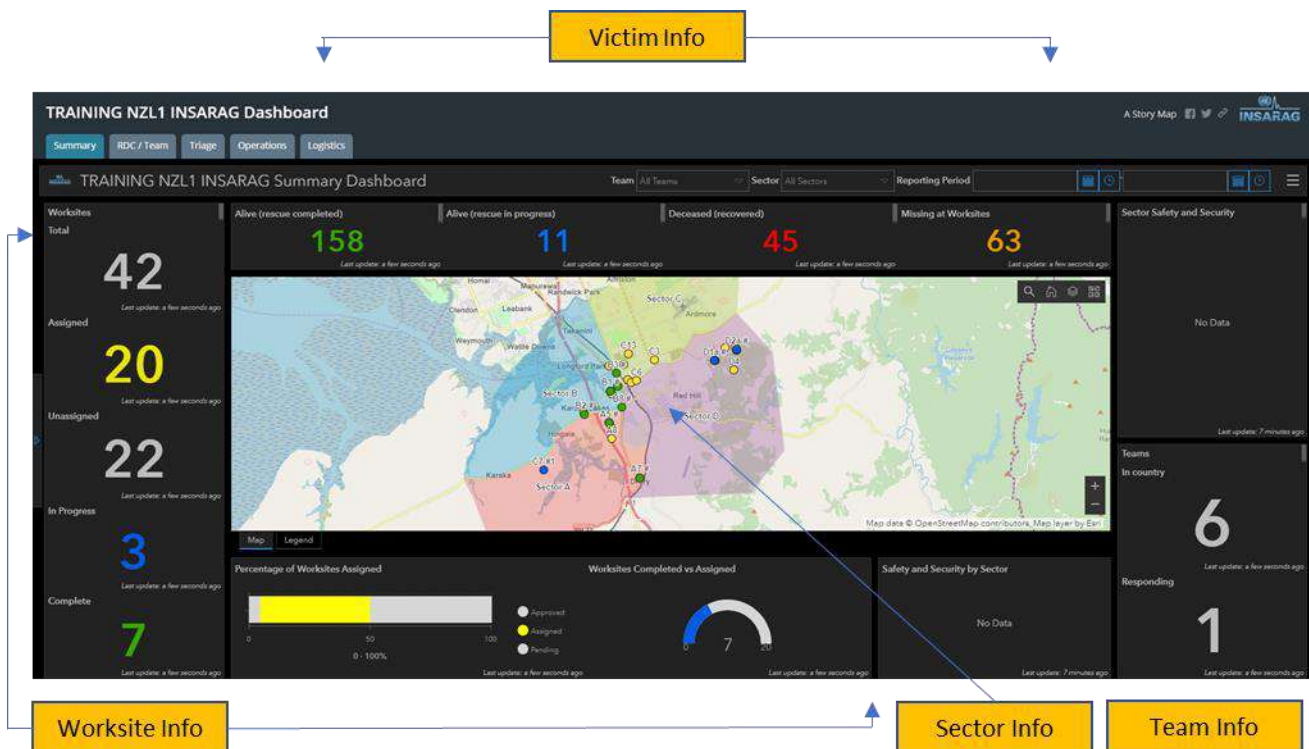
Team use of the dashboards is limited to monitoring and updating Team Factsheet information (Although this can be done on the mobile app)

Dashboards in detail is covered in the UCC Field Operations guide.

Only UCC logins can complete action functions on Dashboards.

In Brief the dashboards are explained below.

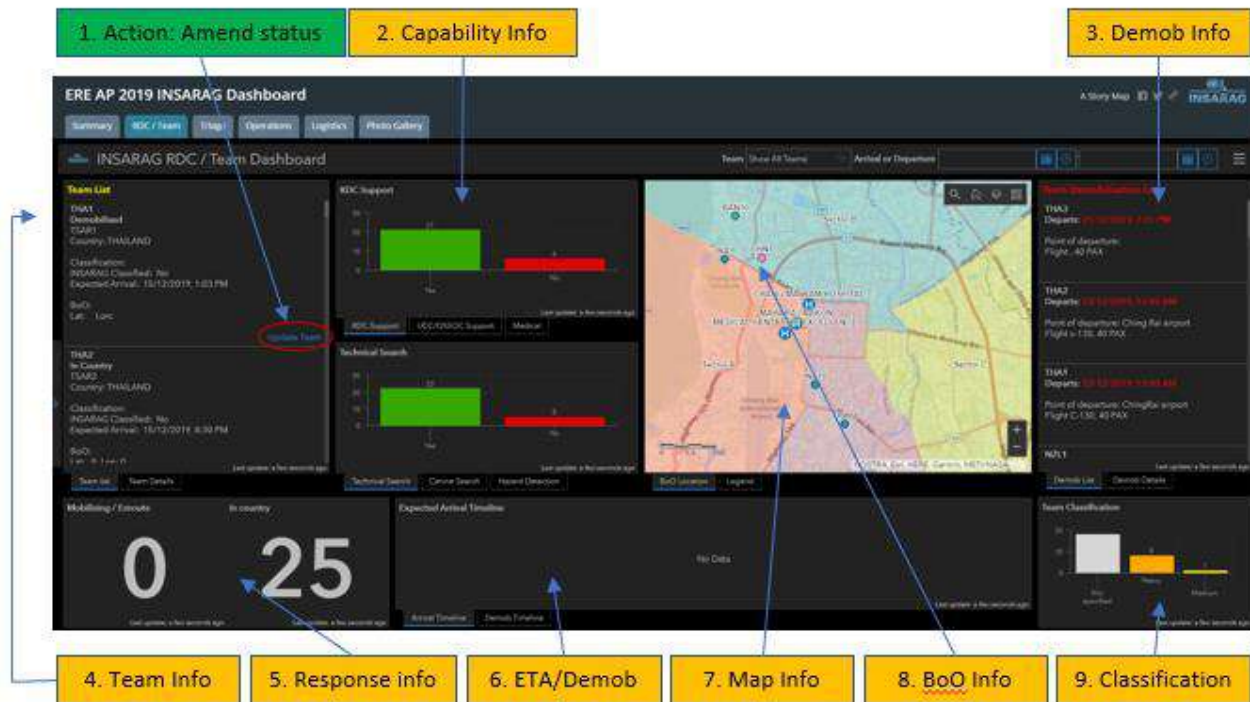
Summary TAB



The purpose of the summary TAB is to show a snap shot of the current situation in a single information graphic.

1. The column on the left shows the current status of worksites.
2. This current view shows that there are 42 worksites that have been triaged, 20 of these have been assigned, with 22 yet to be assigned.
3. The in progress and completed data comes from worksites that have submitted at least one worksite report, while the complete worksites have had the completed field filled in on a worksite form.
4. The bar graph shows a percentage of assigned verse unassigned
5. The Semi Circle graph shows the number of worksites assigned (end number (20)) against the number completed (7).
6. The victim info shows the following:
 - a. Alive (rescue completed) Number of live rescues completed within the INSARAG system
 - b. Alive (rescue in Progress) Number of confirmed alive rescues still be worked on
 - c. Deceased (recovered): Dead recovered
 - d. Missing at worksites: This number only reflects the number of unconfirmed people missing from INSARAG Triage forms and may differ from the LEMA's number of missing.
7. This TAB is primarily for use at LEMA and other meetings where a summary of information is required and not details or actions for other UCC activities.

RDC/TEAM TAB



The RDC /Team TAB will usually be managed by RDC, however in some instances there may be a requirement for UCC to update the information on TEAMS.

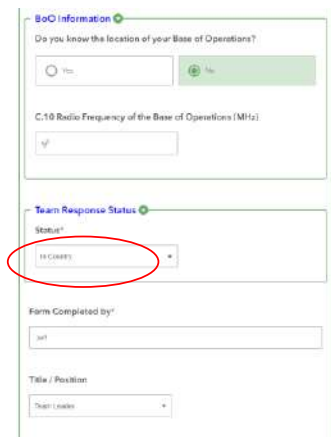
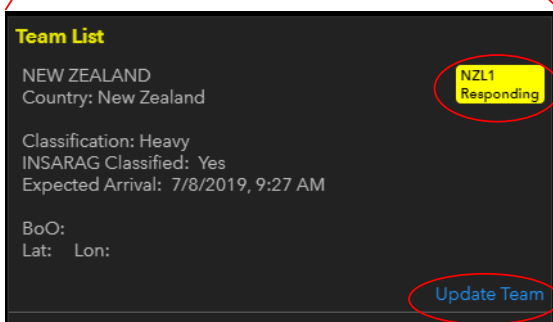
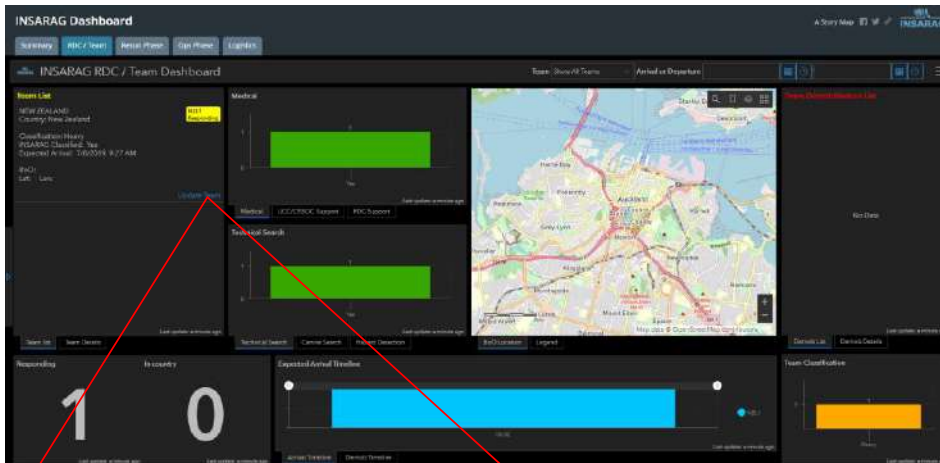
This TAB shows:

1. Action: Ability to change the status and update team fact sheet
2. Capability Info: Information around the capabilities of teams and what is available to UCC
3. Demob: Demob: Team demobilisation details from DEMOB/TEAM FACT Sheet
4. Team information: Team Fact sheet information (includes BoO location when supplied)
5. status of "response: How many teams are Mobilising, enroute and how many have arrived
6. ETA Demob: Graphically shows ETA and DEMOB timelines for Teams
7. Map info: Shows local area, sectors and team BoO locations
8. BoO info: Shows BoO locations
9. Classification: Classification teams by type and numbers

Key function of RDC/UCC on this TAB is to ensure that the teams are updating their response status and also to ensure that when they have a BoO location it is entered into the system.

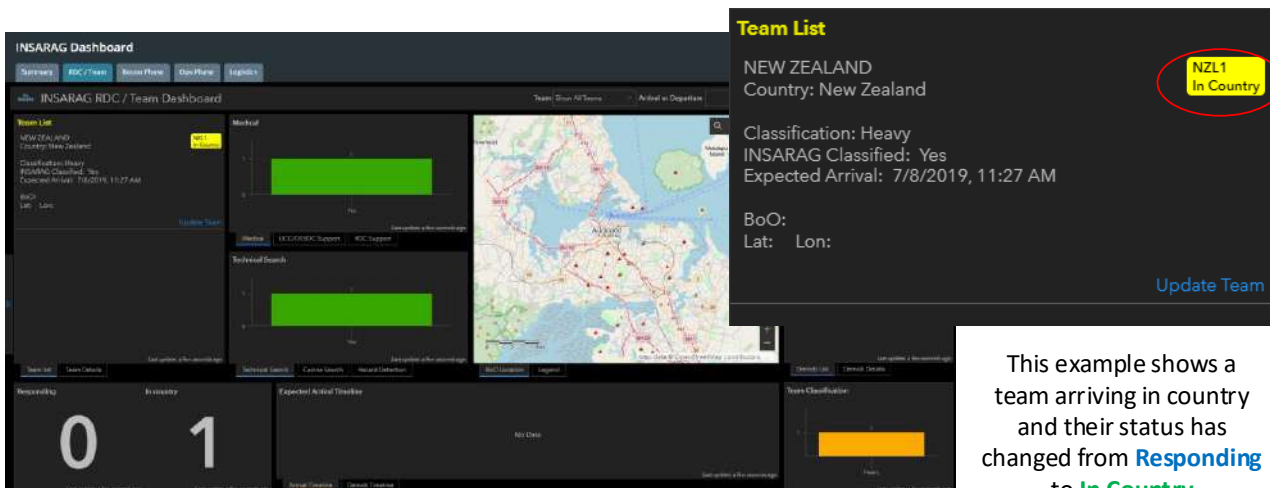
ETA and Demobilisation timelines are generated from information on TEAM FACT Sheet and DEMOB form, as is the information on the DEMOB section.

Amend Team Status (RDC)



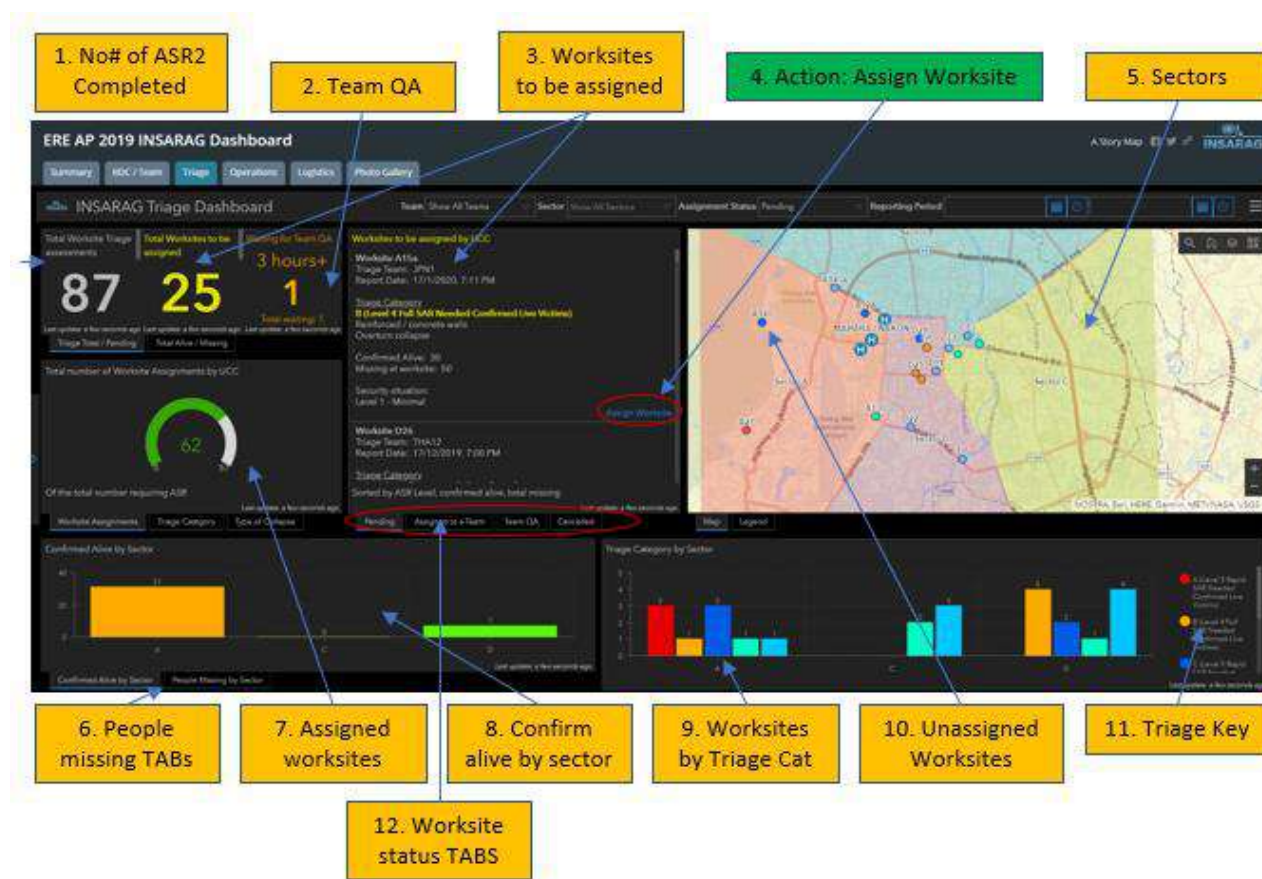
To update or change a team status click on update team
(This is actually amending the team fact sheet entered by the team)

On click the system will open up a web based Survey123 form which will allow the edit of the existing data: (BoO location, team status etc)



This example shows a team arriving in country and their status has changed from **Responding** to **In Country**

Triage TAB



The **TRIAGE** TAB is arguably the most important information display, in that this is where UCC staff will prioritise and assign teams to worksites.

The Screen provides a range of information that provides the UCC staff with appropriate information to able to assign appropriate teams to a prioritised worksite.

The worksites to be assigned Section (3) prioritises the worksites (confirmed people missing & triage category) and presents the worksite with the highest chance of success and value at the top of the list. UCC staff can use this system and then combine with other known factors to assign the best suited team to a worksite.

The system provides a tasking link “Assign Worksite” to open a Suvery123 web form that allows UCC staff to assign a team(s) to a particular worksite. (this information prepopulates the “Assignment briefing package”, also available through a S123 webform (Ref INSARAG HUB – [Survey123 Hub](#))

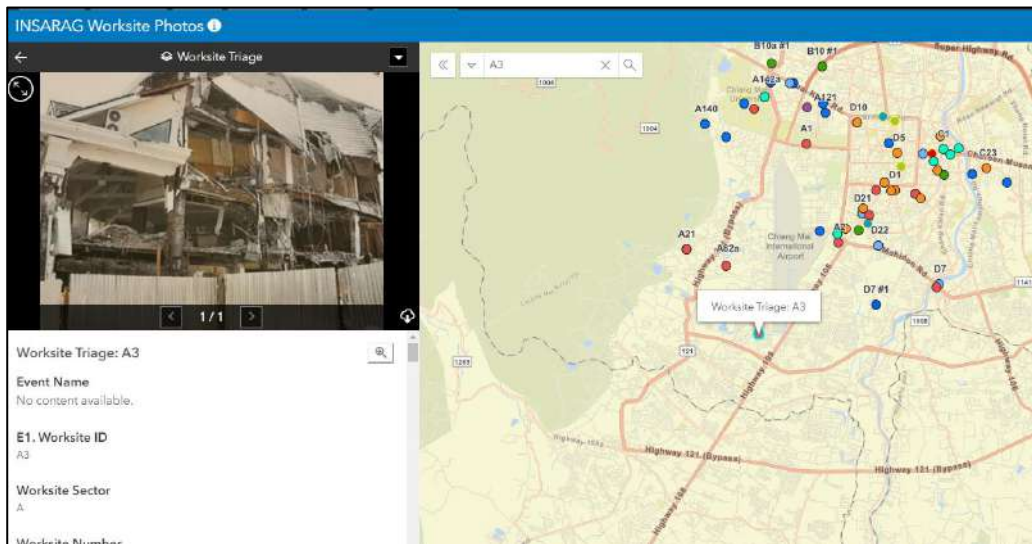
The ICMS Process for receiving Triage forms from the teams, includes a team-based Quality Assurance process (QA) (2) The screen shows how many forms are waiting for QA and after three (3) Hours the number becomes large and highlighted. UCC Staff can enter the QA system via the Team QA TAB (12) and complete the QA if the teams are not doing this. This accessible from the **HUB** via the UCC QAQ APP. (This gives access to all QA functions.

Photo Gallery

Photo Gallery is on a separate TAB (C) and provides the ability to view photos taken on the Triage (ASR2) survey. The photos are designed to inform and help with prioritisation and worksite assignment.

Process:

- Open Photo Gallery (in New TAB or on a different Computer if possible)
- Use search Function to find worksite required
- ICMS Photo gallery will provide Photos and data from Triage form



Update Quality Assurance (QA)

This process is accessed via the HUB Landing page “Team QA Application” and UCC has access to the QA system to ensure that a delay in TEAMS QA process does not unduly impact on the assignment of USAR Teams to worksites.

Ideally the Teams will QA their own squads Triage and worksite reports, but UCC access is available.

QA process:

Team QA Application
 (Button circled in red)

Waiting for Team QA
 3 hours+
 1
 Total waiting: 1
 Last update: a few seconds ago

QA Access from INSARAG HUB

1. Select Form to QA

ERE AP 2019 INSARAG UCC QA WebMap

- Worksite Triage
- Worksite Support
- Victim Extrication

2. Select worksite to QA

ERE AP 2019 INSARAG UCC QA

Team Approval Status	W 2	Event Rating	S 1	Worksite ID	Worksite Service	W 3	Worksite Number	W 4	W 5
Approved				A1			1		
Approved				A1			1		
Pending Team Review				F1a			1		
Pending				A1			1		

Worksite Triage: A1a
 (Button circled in red)

3. Review data: in table or open S123 form

4. When happy with data, click on pen to approve

Team Approval Status
 Approved
 (Dropdown menu)

5. Click approve in drop down

6. Click Save

Worksite/Operations TAB



Operations Dashboard

The operations dash displays information that is collected on the “worksite report form” and provides the ability to monitor and plan ahead, as well have an understanding of the overall status of the event.

The sections of the Information display (Dashboard) provide key filterable information to UCC staff and OSOCC.

1. **Worksites assigned by UCC:** this is the number of worksites that UCC has assigned to teams, with further information indicating how many have been assigned over that past 12 hours. The info graphic in “10” shows how many of these are complete (this example 43/62)
2. **Worksites in Progress:** This number will tell you how many worksites have submitted their first worksite report form (If teams have not yet submitted a worksite form, they will not be reflected in this number) for example we have 62 assigned Worksites, 14 worksites in progress and 43

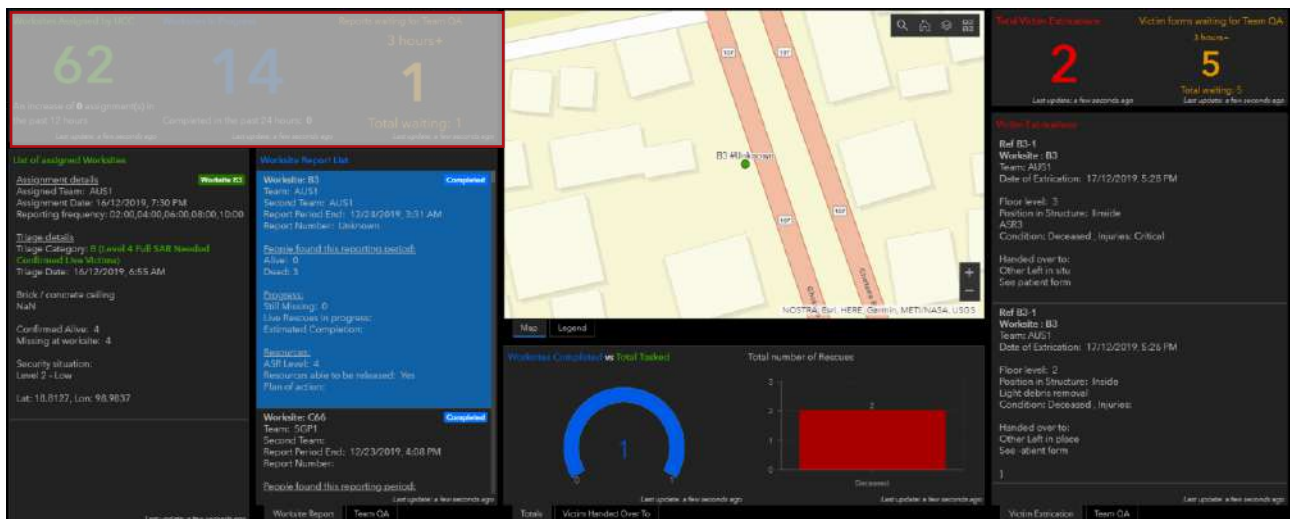
completed a total of 57. (5 worksites have yet to submit their first form). ICMS allows teams to submit as many worksite forms as they need and at any time, so if a significant event takes place then this information can be updated immediately.

3. Worksite Reports awaiting QA: There are 3 QA sections in this dashboard; they have the same function as all the other QA displays in ICMS. The display allows you to see what reports are pending and over 3hrs and provides an “action link” in “9” that allows UCC to override team QA if they exceed 3 hours.
4. Map showing sectors and assigned worksites (Green are complete and blue active)
5. Victim extrication information: Two functions: Extrication count and a summary of each VE form (Click on record and it will show filtered worksite information.)
6. Ref 3: Victim extrication form QA system
7. Assigned worksite information: (Shows Triage detail)
8. Worksite report: Shows the most up to date or latest worksite report information. The #2 (B7 #2) on the map indicates that the work has submitted two (2) worksite reports and the information is from the 2nd report.
9. Stacked TAB – Worksite QA system Ref (3)
10. Current worksite statistics – 2 items
 - a. Number of worksites completed against the number assigned
 - b. Numbers of live and deceased victims
11. Stacked TAB: - Victims handed over to: Information about who received victims from the worksites by Type (Ambulance, Family, Hospital etc)
12. Stacked TAB – Victim Extrication form QA (Ref 3)

Reports are available via the Survey123 Hub from the main HUB Page.

The only actions available from the Operations Dashboard are to address overdue QA functions.

Filtering will be covered in another section; however, it is possible to filter sections of the dashboard eg: Clicking on a worksite in the worksite report list will show filter worksite information for just that one worksite. (example below). Click record again to deselect. This applies to victim extrication forms as well.



Logistics TAB

The logistics section is effectively the G20 line in the worksite form that asks teams to submit their logistics requests to UCC. (Note this may depend on how logistics is being managed; at UCC or Team level)

The system receives request from the S123 form (Resource Request) and displays the requests and the current status of requests on the dashboard.

1. Status of requests by worksite

2. New Request

3. Requests processing

4. Total requests by type

5. Completed requests

6. Action Link to update request

7. update request form S123 link

1. Order status of requests being processed by worksite.
2. New requests yet to be actioned
3. Requests currently being processed
4. Totals of requests by type
5. Completed requests
6. Action link will open a survey123 form that will allow the editing of an order status and also apply notes and expected delivery times.
7. Survey123 resource request form;
 - a. Change status of order
 - b. Update delivery times
 - c. Add notes to order

****Note:** This is a new section which will likely develop as ICMS evolves. Its purpose is to provide a system to requests resources during the work period so that they can requests can be actioned and issues identified before the next work period and to enable prioritisation of scarce resourcing.

Photo Gallery TAB

Photo Gallery provide the ability to view any images taken in the field by worksite.

The purpose of including the photo viewer is to provide UCC staff with as much information about worksites as possible, so that any decisions made are the best possible. The photos from worksites can provide additional information that may inform team selection and tasking, as well as providing UCC with the ability to ratify field triage ratings and the like.

The screenshot displays the 'ERE AP 2019 INSARAG Dashboard' with the 'Photo Gallery' tab selected. The interface is divided into several sections:

- Top Navigation:** Includes tabs for Summary, RDC Team, Triage, Operations, Logistics, and Photo Gallery.
- Left Panel:** A grid of photo thumbnails under the heading 'INSARAG Worksite Photos'. A blue arrow points from annotation 1 to the 'Photo Gallery' tab and from annotation 2 to the search bar.
- Map:** A map of Chiang Mai showing various worksite locations marked with colored dots. A blue arrow points from annotation 3 to a specific marker on the map.
- Right Panel:** A detailed view of a selected photo. A blue arrow points from annotation 4 to the 'Worksite Triage: A103' details section, from annotation 5 to the photo thumbnail, and from annotation 6 to the full-screen photo view.

Worksite Details (Annotation 4):

- Worksite Triage: A103
- Event Name: No content available
- E1. Worksite ID: A103
- Worksite Sector: A
- Worksite Number: 103
- Suffix letter: No content available
- E3. Address: Mapfuser: Google, Chiang Mai, 50200, Thailand

Photo gallery

1. Select type of form that you wish to see photos from (It will default to Triage)
2. The search function allows easy worksite location by entering in the worksite ID Number (A3b)
3. Selecting a worksite from the map (Click on dot) will also filter the information and display the photo(s) from the worksite
4. Details of the worksite are also provided as a check.
5. Photo(s) are displayed from selected worksite
6. Full screen button

Filtering Dashboards

Filtering can take place at two levels:

1. Full dashboard filter
2. Element filtering

Full dashboard Filtering

The filter bar at the top of the dashboard provides an option to filter the current dashboard.



1. Filter by Team: Team Command Points (CP) can use this to monitor their own operations on worksites
2. Filter by Sector: When sector coordination is put in place, filtering by sector will provide the Sector Coordination Cell (SCC) with the ability to just monitor and work on worksites in its sector.
3. Filter by status: This will be different depending on what Dashboard you are working, but in this example (Triage) you can filter by worksites assigned or those that are pending assignment.
4. Filter by reporting period: This function allows UCC Personnel to filter based on a date and time range

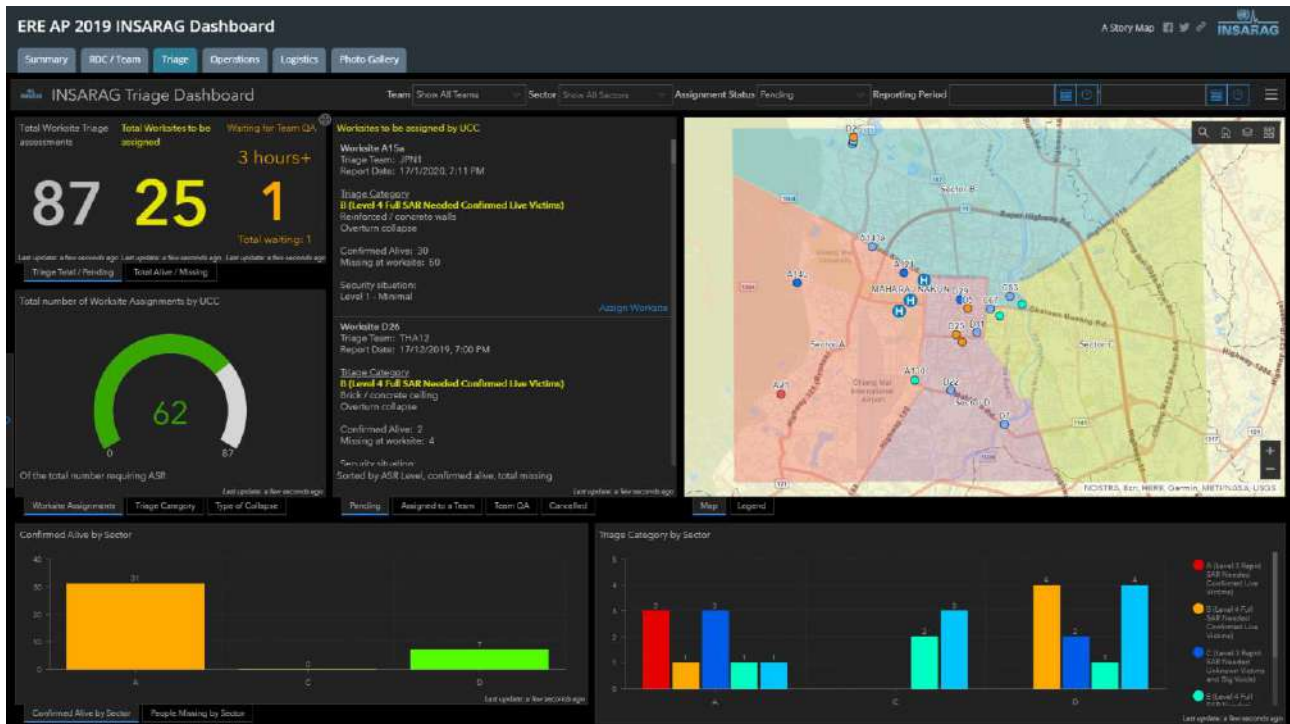
Element based filtering

Element based filtering is a function within the dashboards where for many graphs or displays, clicking on a specific part or parts of the graph will filter based on that element.

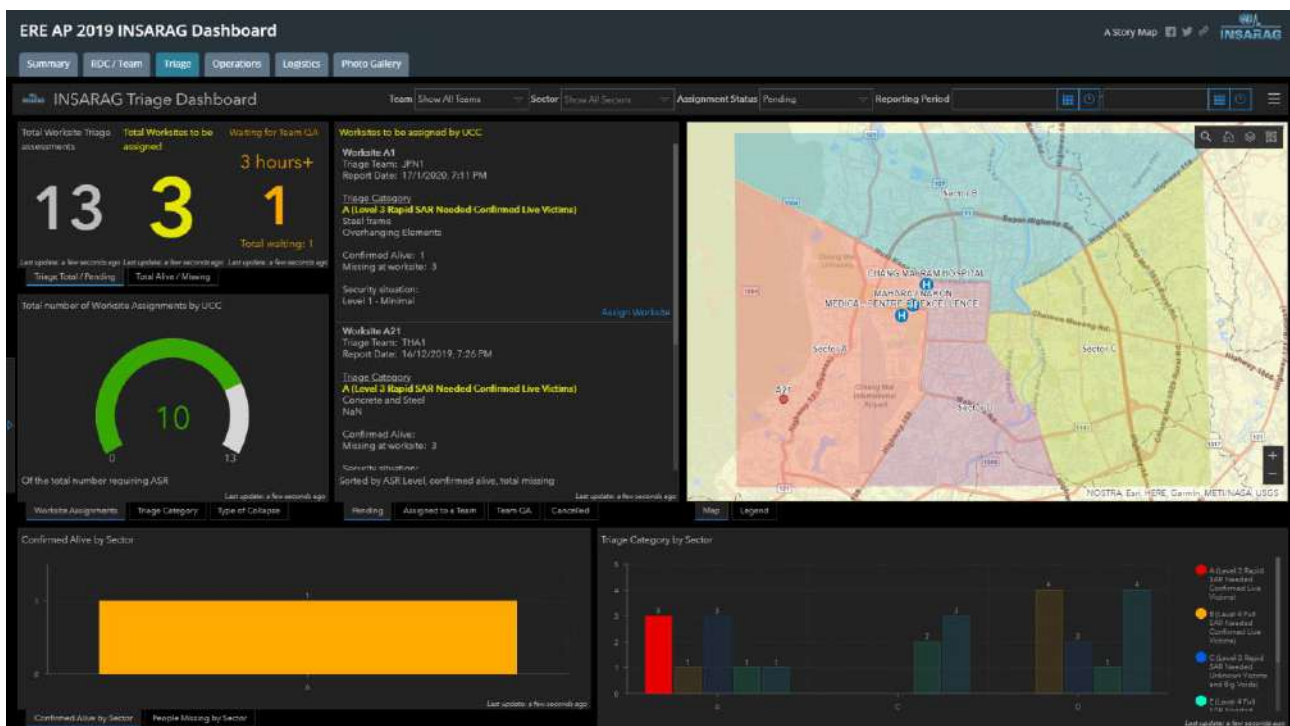
These functions exist in a number of areas and part of your familiarisation of ICMS will include understanding where these are.

The example below shows the Triage category filter being applied.

Picture 1 shows the full unfiltered triage dashboard



Picture 2 shows the results after only Triage Category A is selected.



The dashboard has filtered based on the selection and all information now reflects the filter.

Using Stacked TABs

The dashboards all, to a greater or lesser degree use “Stacked TABs” where usable space on a dashboard limits what can be displayed.

ICMS has prioritise some information so that it is displayed, while related information is put into TABs that are stacked and hidden behind the prioritised information.

These stacked TABs are all through ICMS and you can access the hidden information by clicking on the hidden TAB.

Worksites to be assigned by UCC

Report Date: 16/12/2019, 7:26 PM

Triage Category
A (Level 3 Rapid SAR Needed Confirmed Live Victims)
 Concrete and Steel
 NaN

Confirmed Alive:
 Missing at worksite: 3

Security situation:
 Level 2 - Low

[Assign Worksite](#)

Worksite A5
 Triage Team: JPN1
 Report Date: 17/1/2020, 7:23 PM

Triage Category
A (Level 3 Rapid SAR Needed Confirmed Live Victims)
 Debris heaps

Confirmed Alive:
 Missing at worksite:

Security situation:
 Level 3 - Moderate

[Assign Worksite](#)

Sorted by ASR Level, confirmed alive, total missing

Last update: a few seconds ago

Pending Assigned to a Team Team QA Cancelled

1. Always displayed
pending worksites

List of assigned Worksites

Assignment details **Worksite A1**
 Assigned Team: CHN1
 Assignment Date: 16/12/2019, 10:00 PM
 Reporting frequency: 06:00

Triage details
 Triage Category: **A (Level 3 Rapid SAR Needed Confirmed Live Victims)**
 Triage Date: 16/12/2019, 6:04 PM

Brick / concrete ceiling
 Overhanging Elements:

Confirmed Alive:
 Missing at worksite: 5

Security situation:
 Level 1 - Minimal

[Update Worksite Assignment](#)

Assignment details **Worksite A1**
 Assigned Team: JPN1
 Assignment Date: 17/1/2020, 7:45 PM
 Reporting frequency:

Triage details
 Triage Category: **A (Level 3 Rapid SAR Needed Confirmed Live Victims)**
 Triage Date: 17/1/2020, 7:13 PM

Reinforced / concrete walls
 Worksites already assigned

Last update: a few seconds ago

Pending Assigned to a Team Team QA Cancelled

2. Hidden display for
assigned worksites

Conclusion

The team level component of ICMS in the current phases of development of primarily focused on data collection and monitoring. Future development will include squad level tasking and other enhancements.

At this time the Dashboard systems are primarily for awareness and the action functions should be accessed via the INSARAG HUB for updates to the QA system and updating Team fact sheets. (Team fact sheets can be updated on the device that submitted them by going to the inbox in S123 and reopening the Team fact sheet. This can be used to input new information like status, BoO location and demobilisation information.

This manual is an interim one that will fill the gap until more substantial ones are produced.

Any queries please email: insarag.imwg@gmail.com

Saving/Printing forms

2. Feature report

1. Select Team

Event Name	A.0 Team ID	Olympic Country code	National team number	A.1 Team Name	A.2 Home Country	A.3 Number of Persons	A.4 Number of dogs	A.6 INSARAG Classified Team	A.5 Classification Type
NZL1	NZL	1	NZUSAR TF1	New Zealand	79	4	Yes	Heavy	
FRA10	FRA	10	FRA	France	85	0	No		
JPN1	JPN	1	Taskforce 1 JPN	Japan	50	0	Yes	Heavy	

3. Name report

4. Click Generate

5. Open Show in...

6. save to...

Related Documents

Title	Brief description of document
ICMS – RDC manual	Technical manual for ICMS operations in RDC
ICMS – Team Manual	Technical Manual for Team functions using ICMS
ICMS - HUB	Technical manual around using INSARAG HUB and its functions

Document information

Owner	IMWG
Last reviewed	23 February 2020
Review period	Yearly

Record of amendments

Date	Brief description of amendment
01/2020	Initial Issue
02/2020	Draft receview