INSARAG Coordination & Management System (ICMS)

EXCON Guide/Methodology Manual

ICMS – EXCON Guide

Introduction

When to use	Use this guide to manage use ICMS for exercises and during IEC/R's. It is for Exercise Control to be inject ICMS functions into any exercises especially around the use of Ghost teams and the team-based forms.
Role	EXCON Staff and USAR management staff

Section 1

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

EXCON 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 EXCON function requires the operator to login to either the TEAM (Most common) and/or UCC functions for the purposes of developing and injecting events within the exercise program. The team functions relevant to actual tasking as is the use of S123 and ArcGIS explorer, this guide will introduce a methodology for using these functions as EXCON.

The methodology for EXCON revolves around the preparation and development of a range of INSARAG forms (Triage, Worksite, Victim Extrication and Team Fact sheet) and how they can be preloaded and injected as required into the exercise.

EXCON can also use the ArcGIS explorer program (either on a tablet or as a windows program on a PC/Laptop)

This manual is different from the other technical manuals in that is describing a methodology of using ICAMS in a function, rather than the technical methodology of collecting and analysing USAR field data. The manual will show the technical details, but you may also reference the other manuals for in-depth technical methodology.

Creating Injects

The key element of this manual is to provide a methodology to enable the EXCON exercise plan to interact with ICMS and provide a way to develop and deploy a range of injects in to ICMS.

These injects will take the form of the delivery of INSARAG forms into the ICMS system in such a way that the injects will be seamless and realistic. Most of the injects will be managed by the RDC/UCC and will be focused on the:

- Team Fact Sheet
- Team Demobilisation Form
- Triage Form
- Worksite Form
- Victim Extrication Form

The methodology at this time uses the same system as the team-based model does but provides a guide on how to develop and preload forms as well as easy ways to copy and prepopulate forms to make managing the injects less of a burden on EXCON.

Common Functions

Most of the EXCON task entries will be via the Survey123 app, either directly or via ArcGIS Explorer.

Survey 123 has a number of functions that will assist in the development and delivery of the injects:

- Setting a completed for as a favourite (allowing it to be copied easily into new forms) This will reduce the amount of data entry required for S123. (Worksite report and Victim Extrication forms)
- Copy data from one form into a new one – as above
- The ability to place a form into the outbox for sending later (this is key to setting up inject timings.)
- The ability to edit submitted forms to change status (eg: Team fact sheet for BoO locations etc)

This process is the current best practice for EXCON delivery, and will require a number of tablets and or laptops to ensure EXCON can preload and time the injects. (Actual numbers will depend on inject numbers)

## Using S123 – Different submit and save options

Once the S123 form is complete, in the normal team role the user would think just click on "send now" and the form would be submitted to the system (Defaulting to Pending Team Review)

For EXCON however there are a couple of options to make it manageable and introduce timing or delayed submissions. A key

For EXCON users, the form being submitted should be set to approved before submitting. This will remove the QA approval step for Ghost or EXCON managed Teams
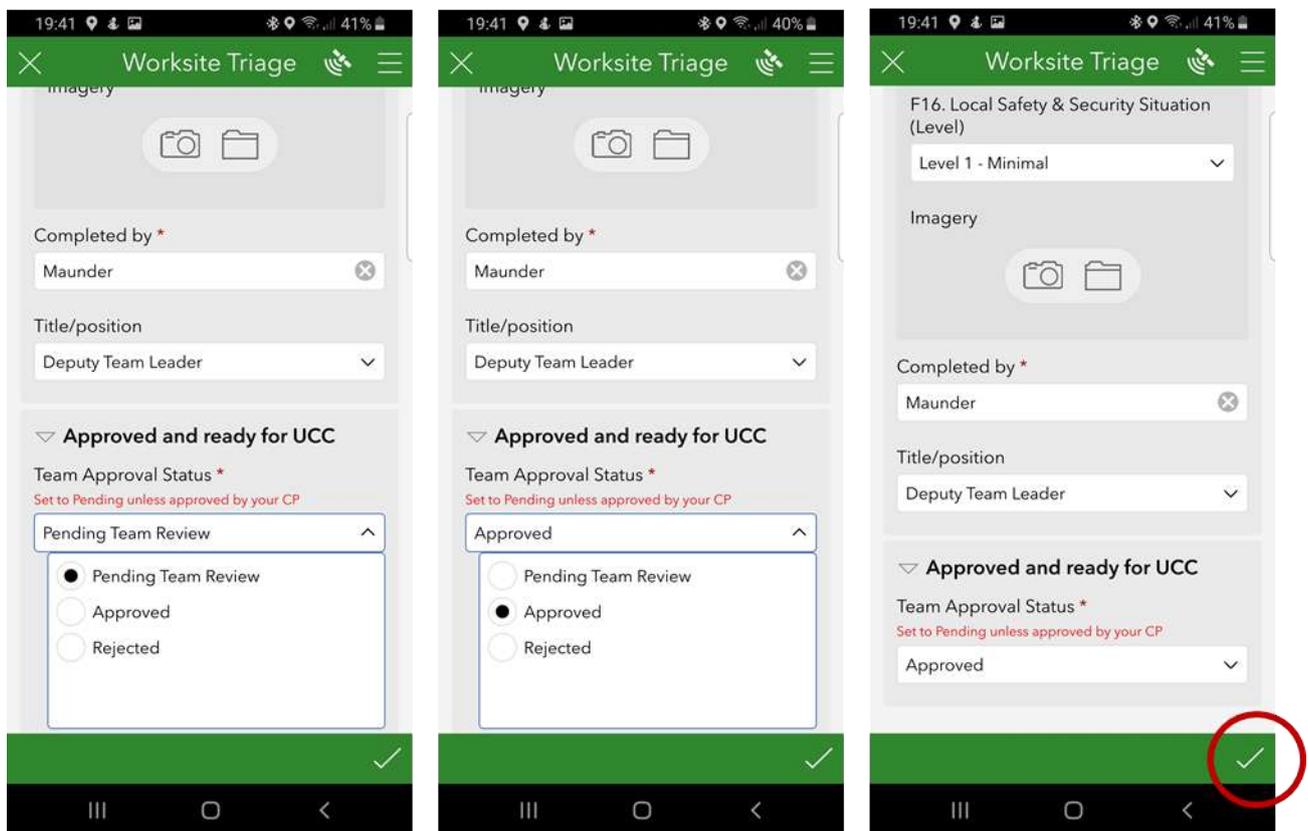
When complete a send or send later menu will present:
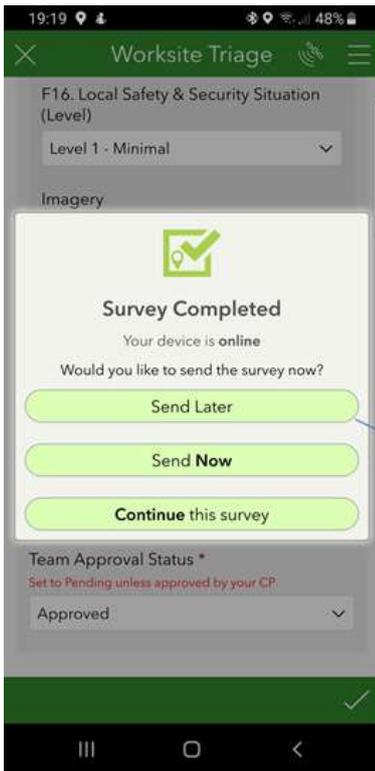
Select **Send Later** will store the form in the outbox, which you can then send when required at a later time.
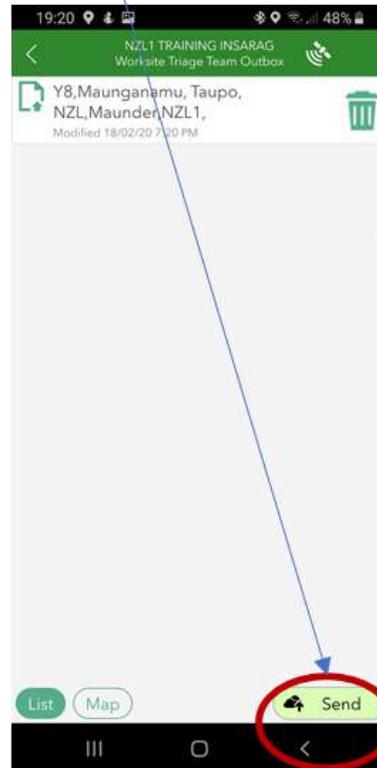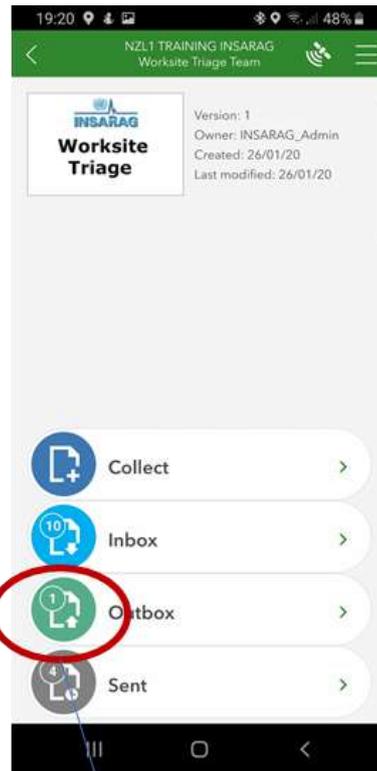
Using S123 – Form copying

To make it easier for EXCON to create and develop a lot of forms, it is possible to copy a previous form and use it as a template. This means you will only need to change some part of the form. This is very useful for victim extrication and worksite forms but can also be used to create Triage forms (These will require more changes however).
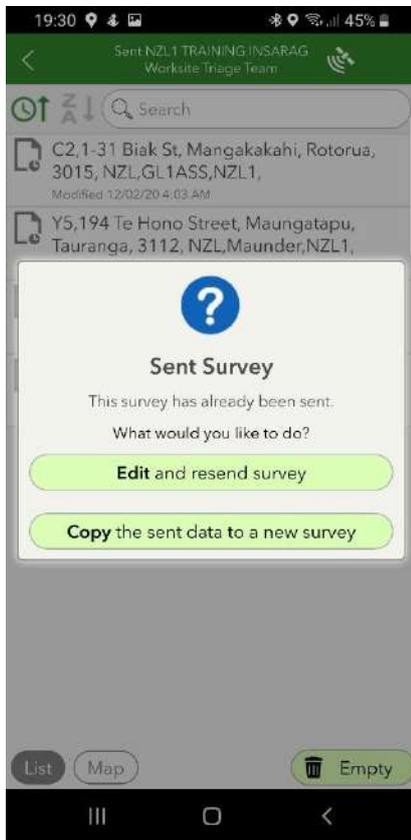
Click Copy sent data to a new survey and a new form will be created with all the data from the current form.

WARNING – make sure that you do not resubmit this information without changing it or you will create a duplicate.


Inbox

The inbox gives you an option to view all forms submitted by going into the inbox and clicking refresh.

This will show all forms submitted and allow you to edit as required (Especially Team Fact sheet and Demob Forms)

EXCON Workflow

```
  ┌─────────┐
  │ Inject  │
  └────┬────┘
       │
  ┌────┴────┐
  │Complete │
  │  form   │
  └────┬────┘
       │
  ┌────┴────┐   ┌─────────┐
  │ Save or │───│ Submit  │
  │ submit  │   │ Later   │
  └────┬────┘   └────┬────┘
       │             │
  ┌────┴────┐   ┌────┴────┐
  │  Sent   │   │ Out Box │
  └─────────┘   └────┬────┘
       ▲             │
       │        ┌────┴────┐
       └────────│ Submit  │
                │ inject  │
                └─────────┘
```
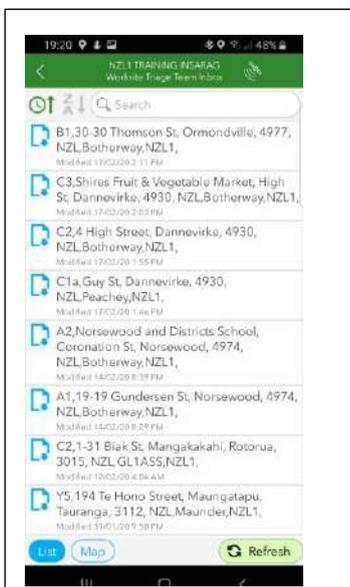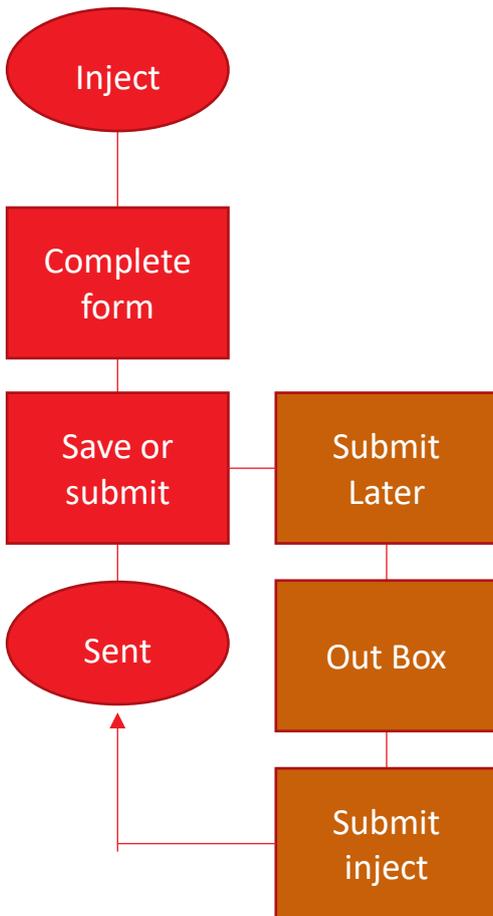
Conclusion

The EXCON workflow mimics that of the team but provides a few options that makes it easy to schedule you form injects by using the "send Later" options and also uses the "copy sent data" option to make it faster to create forms.

EXCON inject schedules should be created first, the ICMS injects (Forms) developed and injected as per schedule.

It will be advisable to have a number of tablets/Devices with injects (forms) set up with preloaded forms especially in the initial stages s that the workload is managed, and forms can be injected as required

Section 2

Workflow
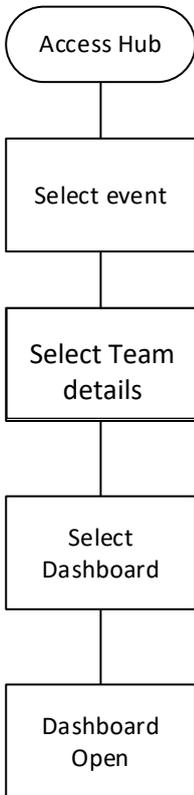
Access Hub — Either from VO / Or via a direct link

Select event

EXCON Access is required

Select Team details

Or select TAB required

Select Dashboard

Dashboard Open
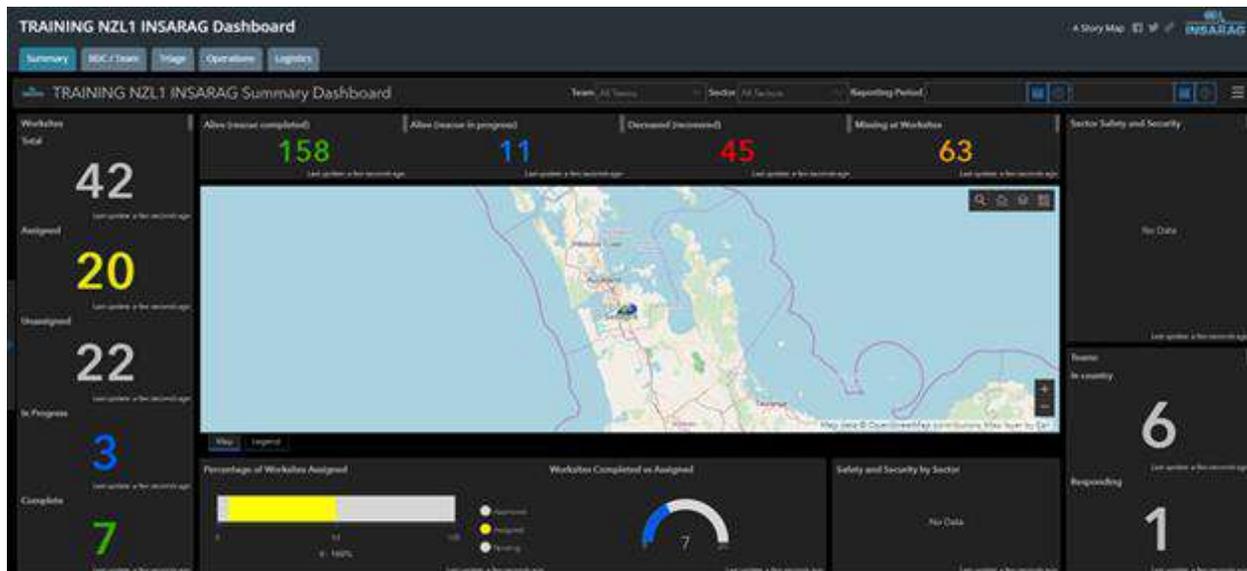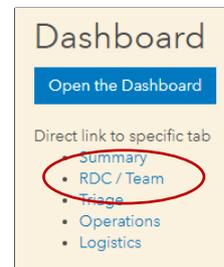
Other Applications

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/

EXCON Login gives a single login access to both Team and UCC functions and applications are all accessible from the HUB.

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).

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
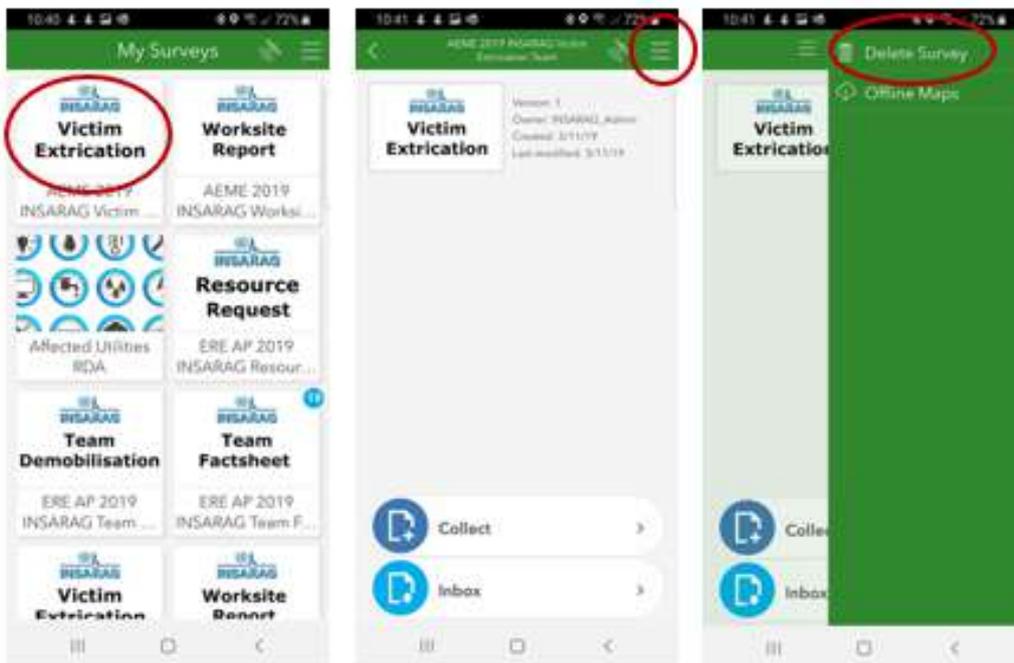
Delete Surveys

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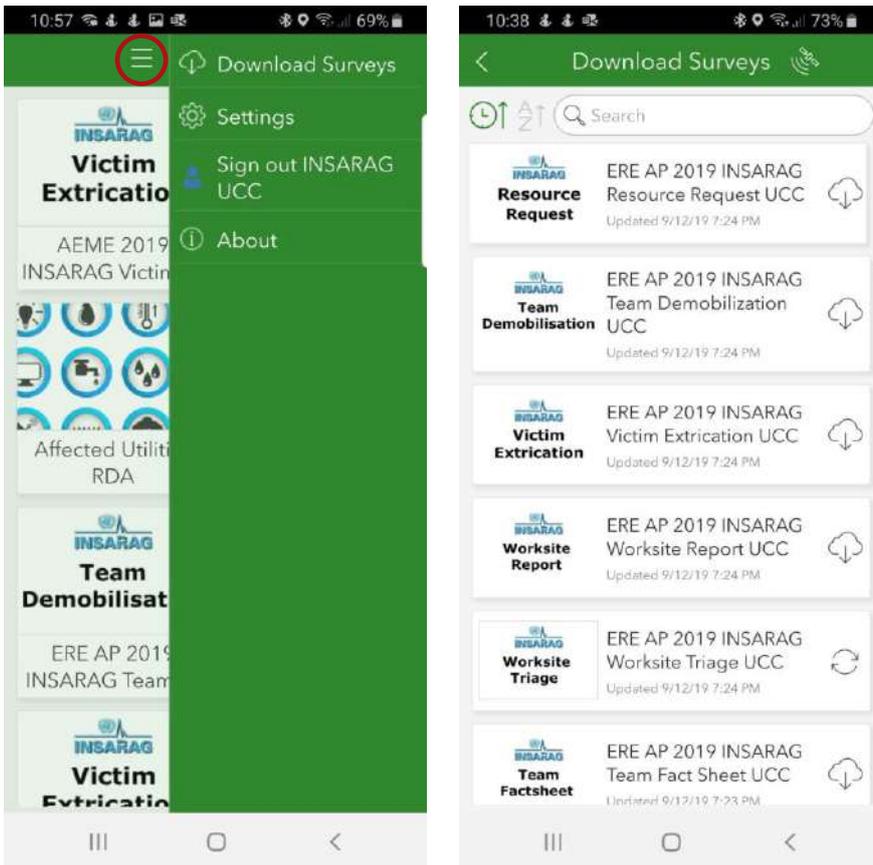
All events have a completely new and specific set of forms and dashboards.

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

Collect: Opens a blank form for collection

Inbox: allows access to forms on this device for editing

Sent: shows that form has been uploaded
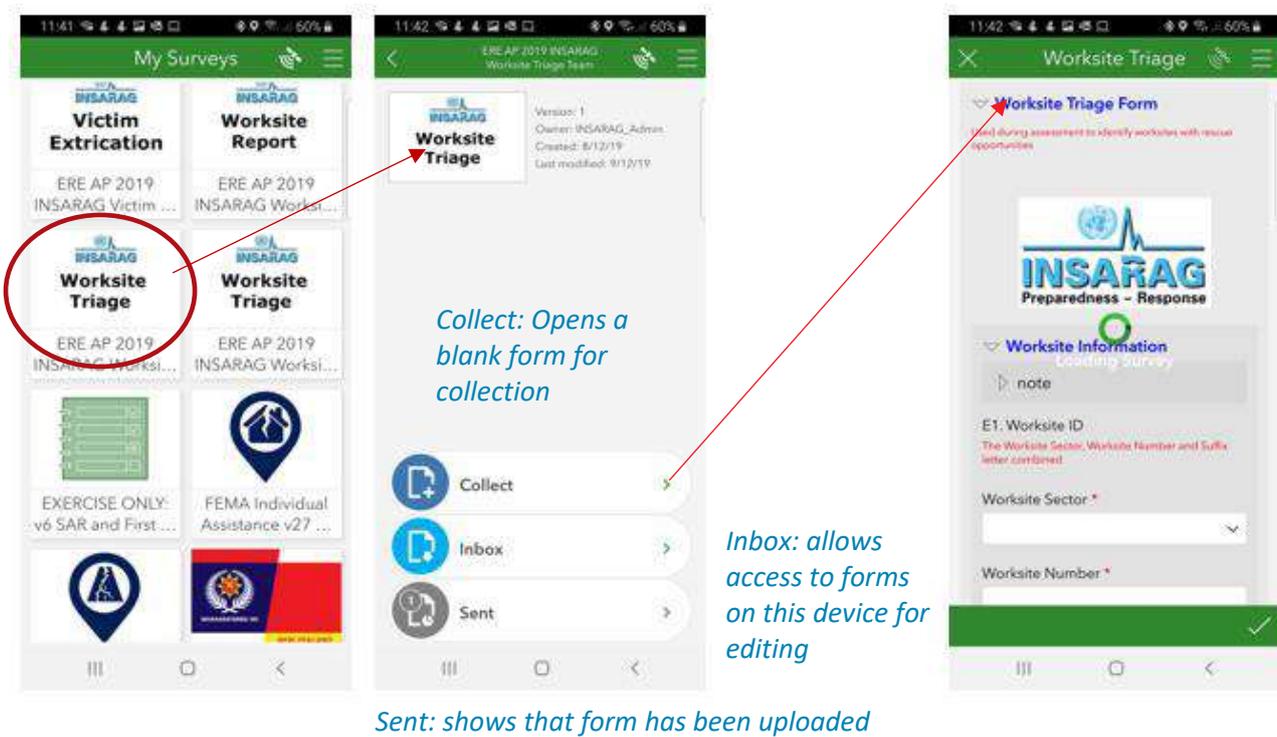
Once a form is completed, users can either reopen the submitted form to review or make changes or can create a new form to complete.

Arc GIS Explorer

What is it?

Explorer for ArcGIS is a mobile app that allows users to see a map either remotely or   eir 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 amp**
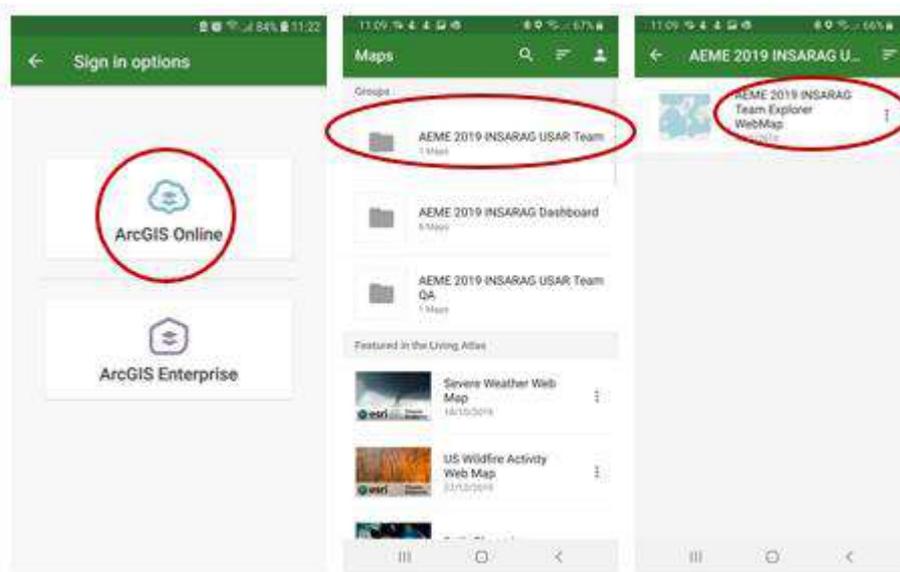
Zoom into the desired area on the map. If sectors have been designated, these will be displayed on the map. If Worksites have been identified they will appear on the map as dots.
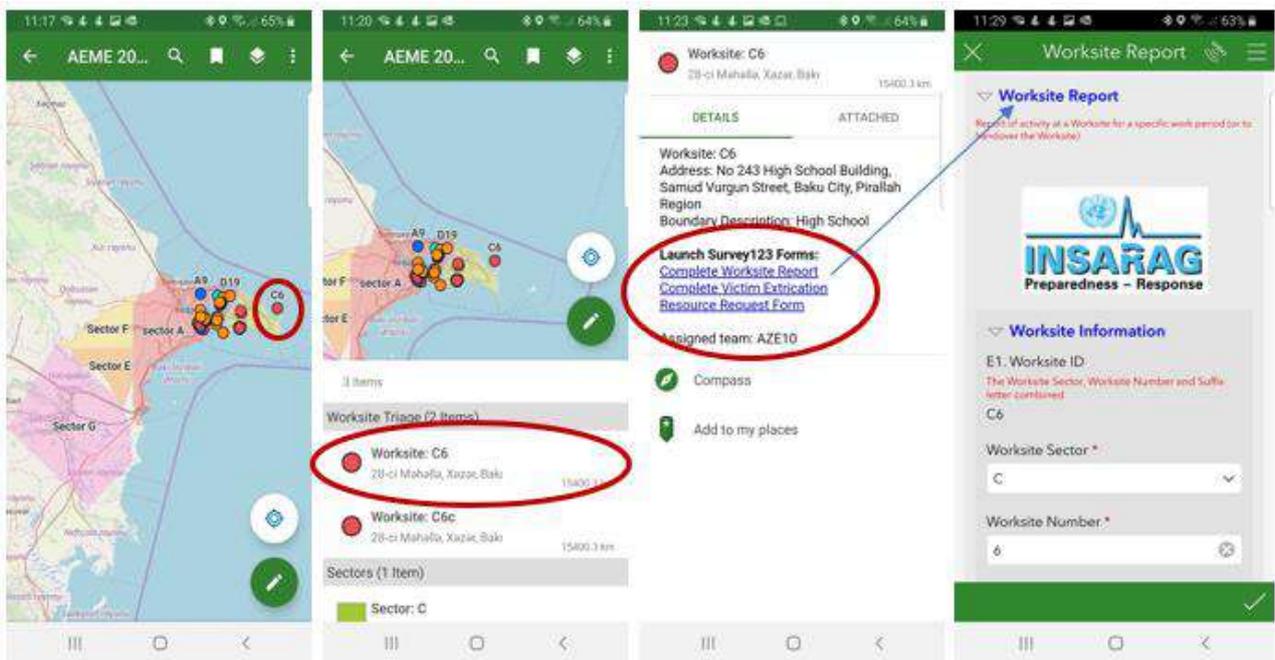
1. Once zoomed in to event location, select your assigned worksite (C6)
2. Depending on the level of zoom , an info screen will give options to select (C6)
3. Depending on the work being completed you will then slect the form you wish to use (Worksite)
4. On clicking the blue worksite link (example) a pre popuated 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
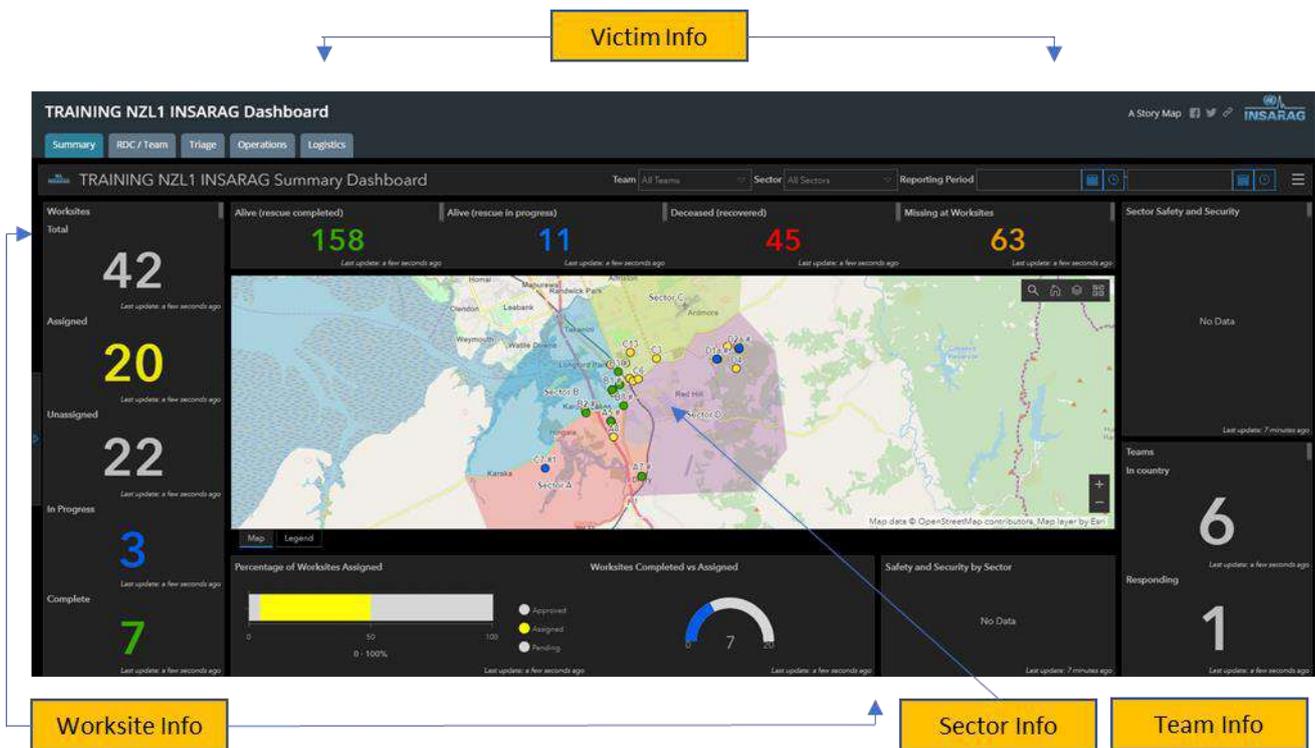
The purpose of the summary TAB is to show a snap shot of the current situation in a single information graphic.

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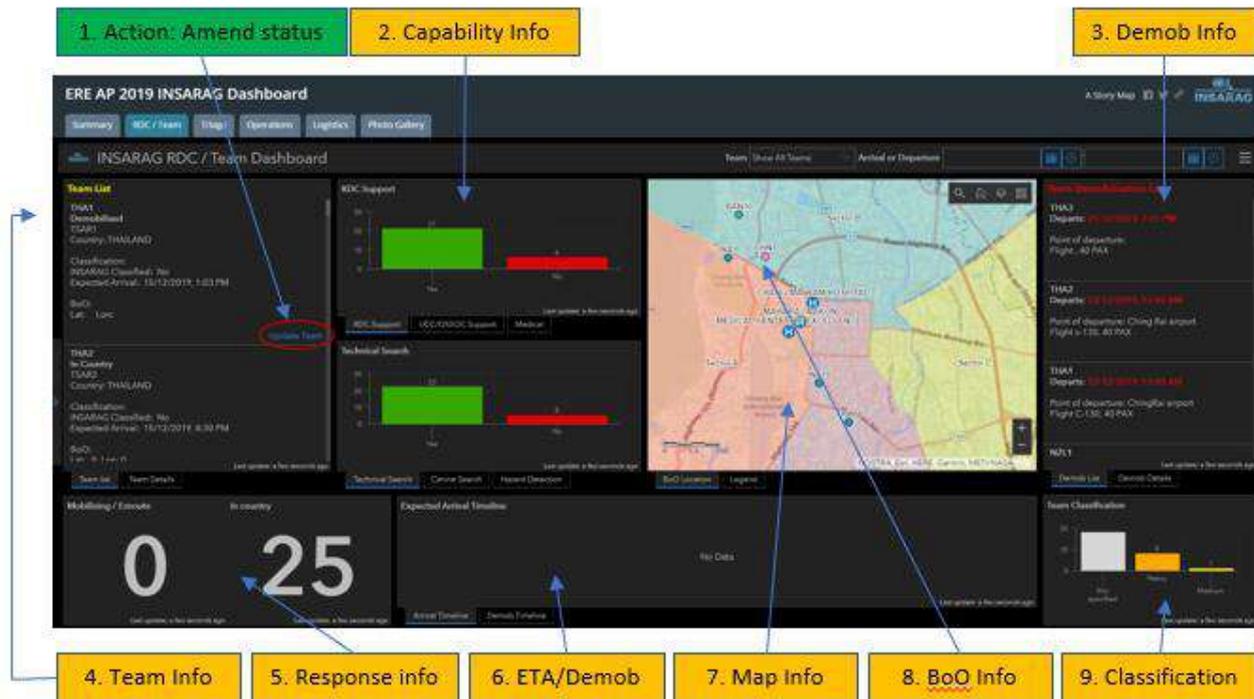
The RDC /Team TAB will usually be managed by RDC, however in some instances there may be a requirement for UCC to update the information on TEAMS.

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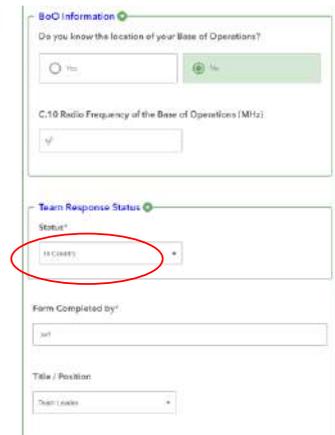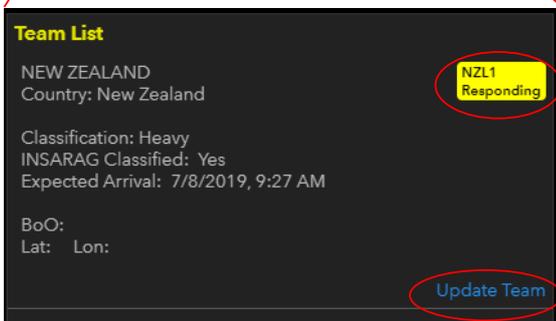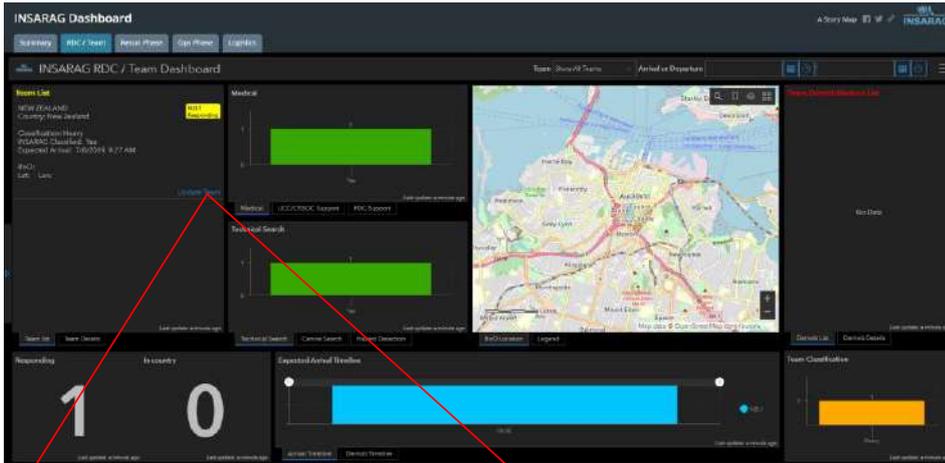
To update or change a team status click on update team
(This is actually amending the team fact sheet entered by the team)

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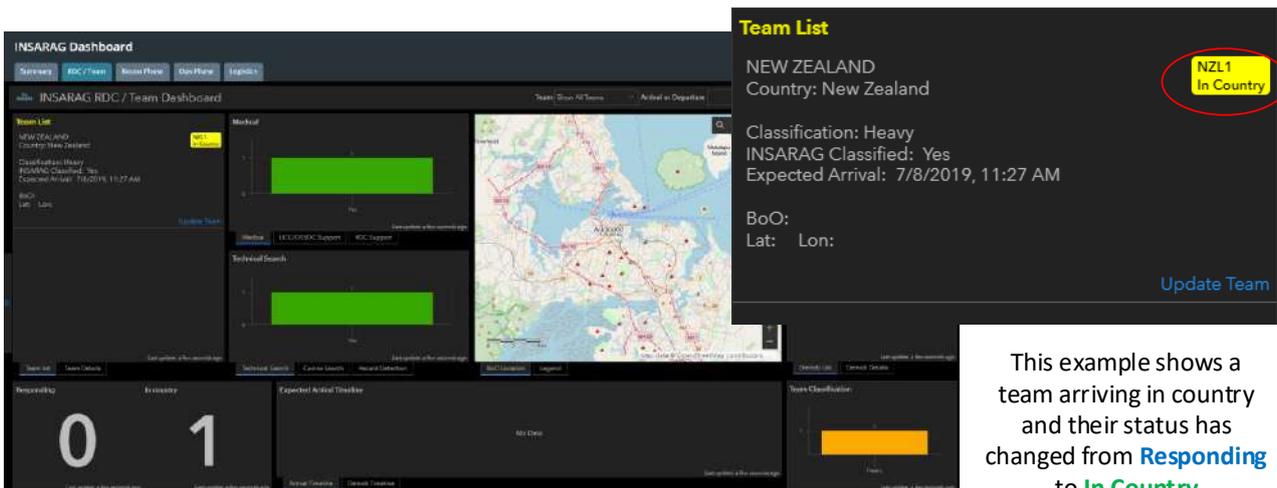
This example shows a team arriving in country and their status has changed from **Responding** to **In Country**

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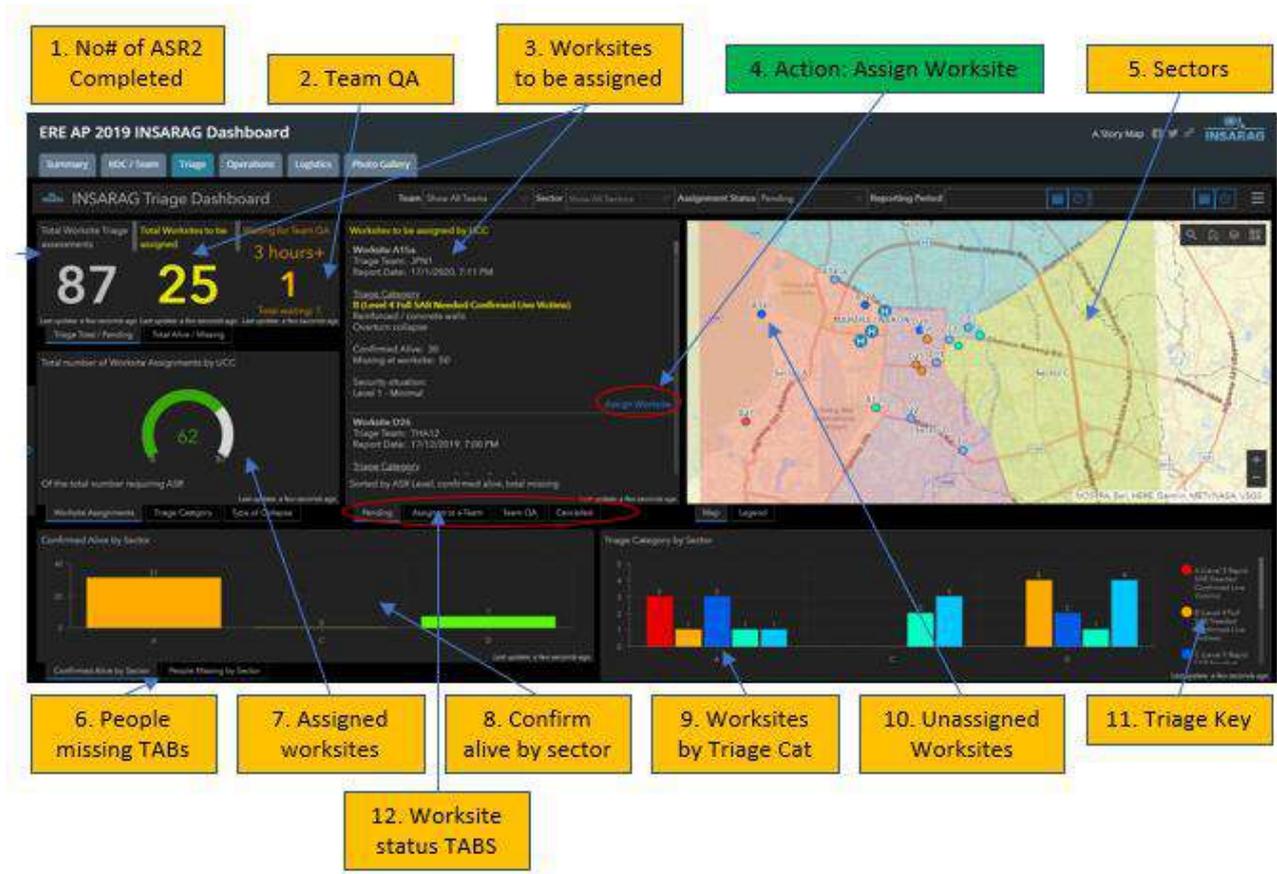
The **TRIAGE** TAB is arguably the most important information display, in that this is where UCC staff will prioritise and assign teams to worksites.

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 though 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 Galley 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 Phots and data from Triage form
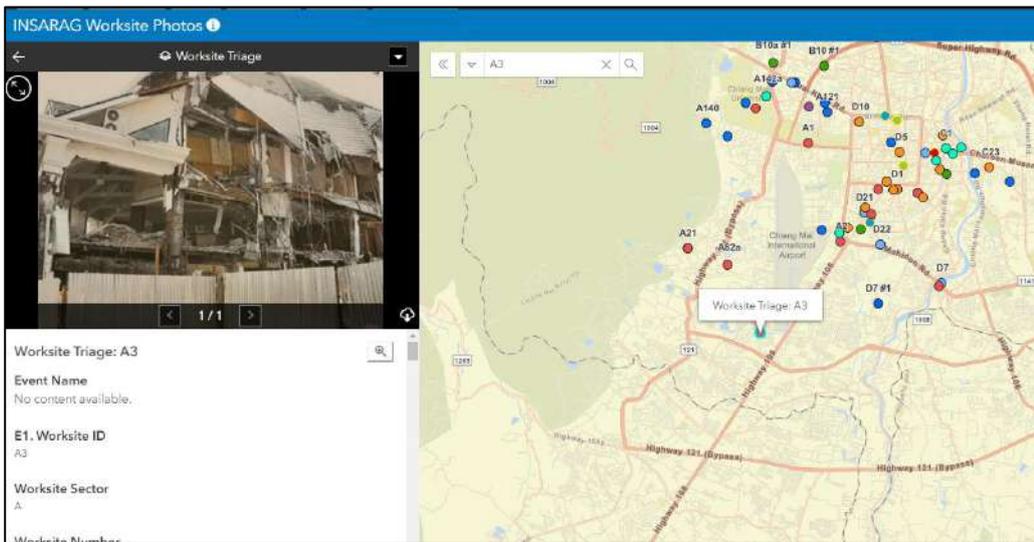
Update Quality Assurance (QA)

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:

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 and "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 vis 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 hat one worksite. (example below). Click record again to deselect. This applies to victim extrication forms as well.
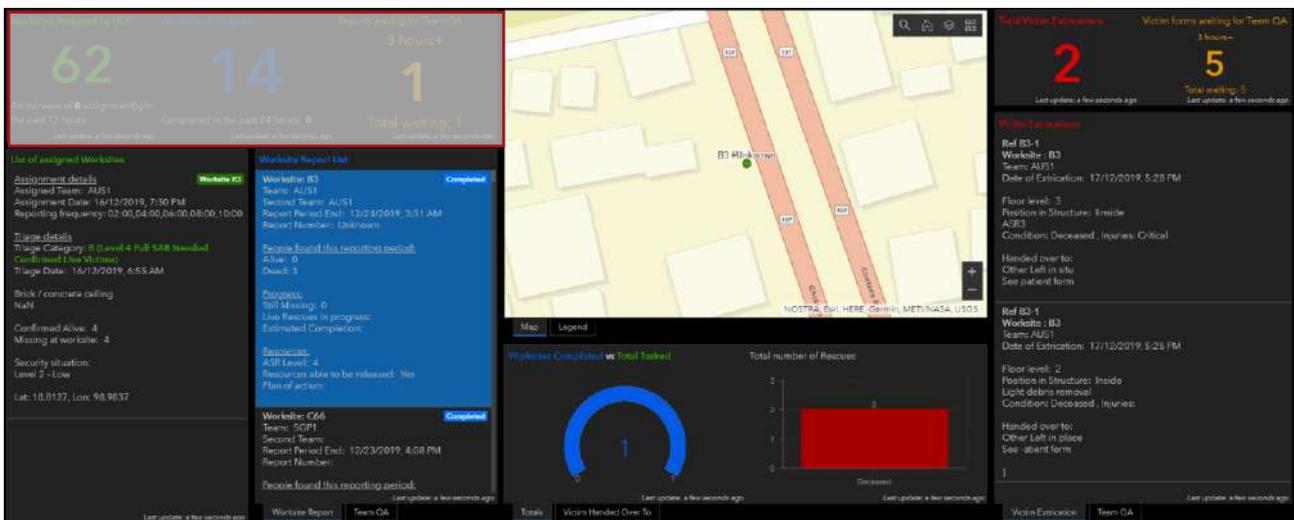
Logistics TAB

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. 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. It 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.

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 and option to filter the current dashboard.
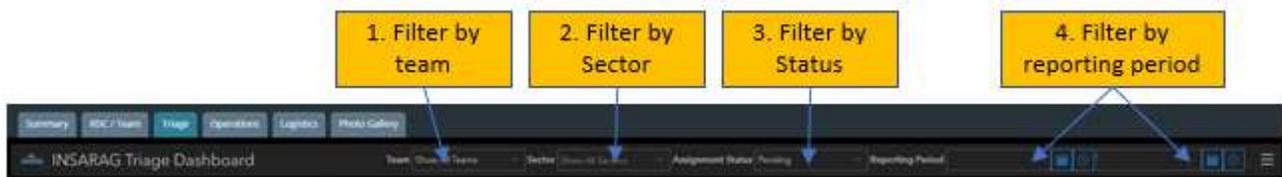
1. Filter by Team: Team Command Points (CP) can use this to monitor their own operations on worksites
2. Filter by Sector: When sector coordination is put in place, filtering by sector will provide the Sector Coordination Cell (SCC) with the ability to just monitor and work on worksites in its sector.
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
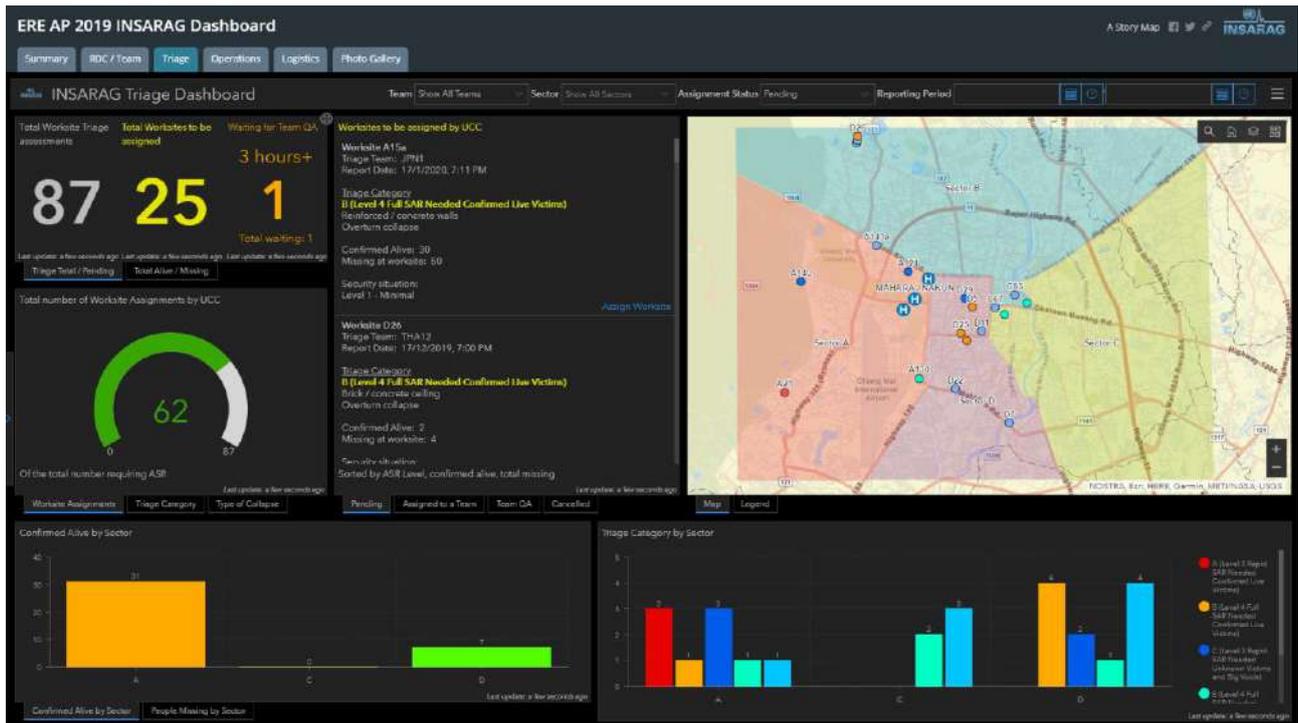
Picture 2 shows the results after only Triage Category A is selected.
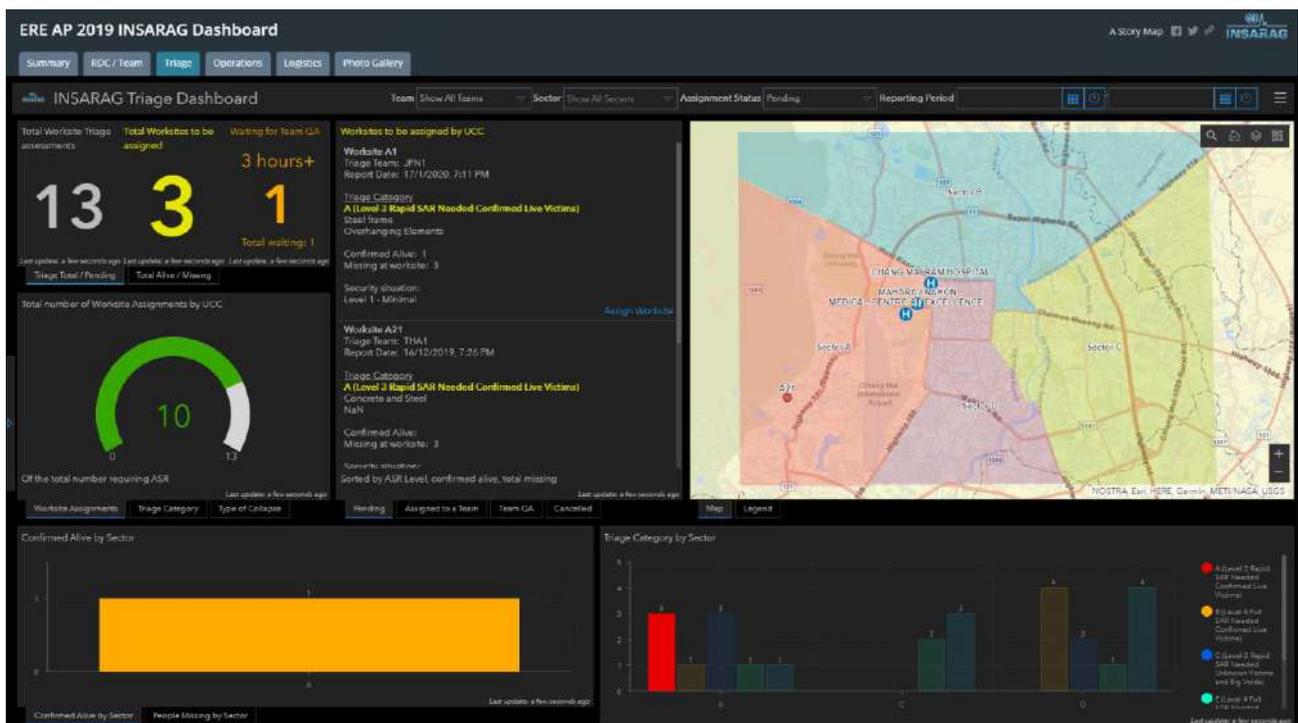
The dashboard has filtered based on the selection and all information now reflects the filter.

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.

1. Always displayed pending worksites
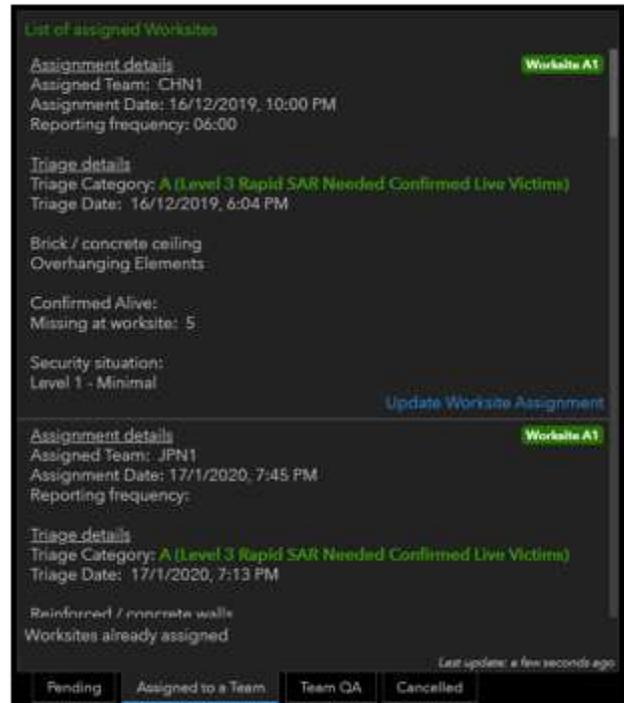
2. Hidden display for assigned worksites

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.

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

Saving/Printing forms

2. Feature report

1. Select Team

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 - UCC	Technical Manual for UCC functions using ICMS

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