LARGE SCALE USAR OPERATION MORANDI BRIDGE AND OTHER CASE STUDIES

ONSITE MANAGEMENT AND THE DIFFICULTY TO IDENTIFY THE NUMBER OF CASUALTIES: INVESTIGATION AND ANALYSIS

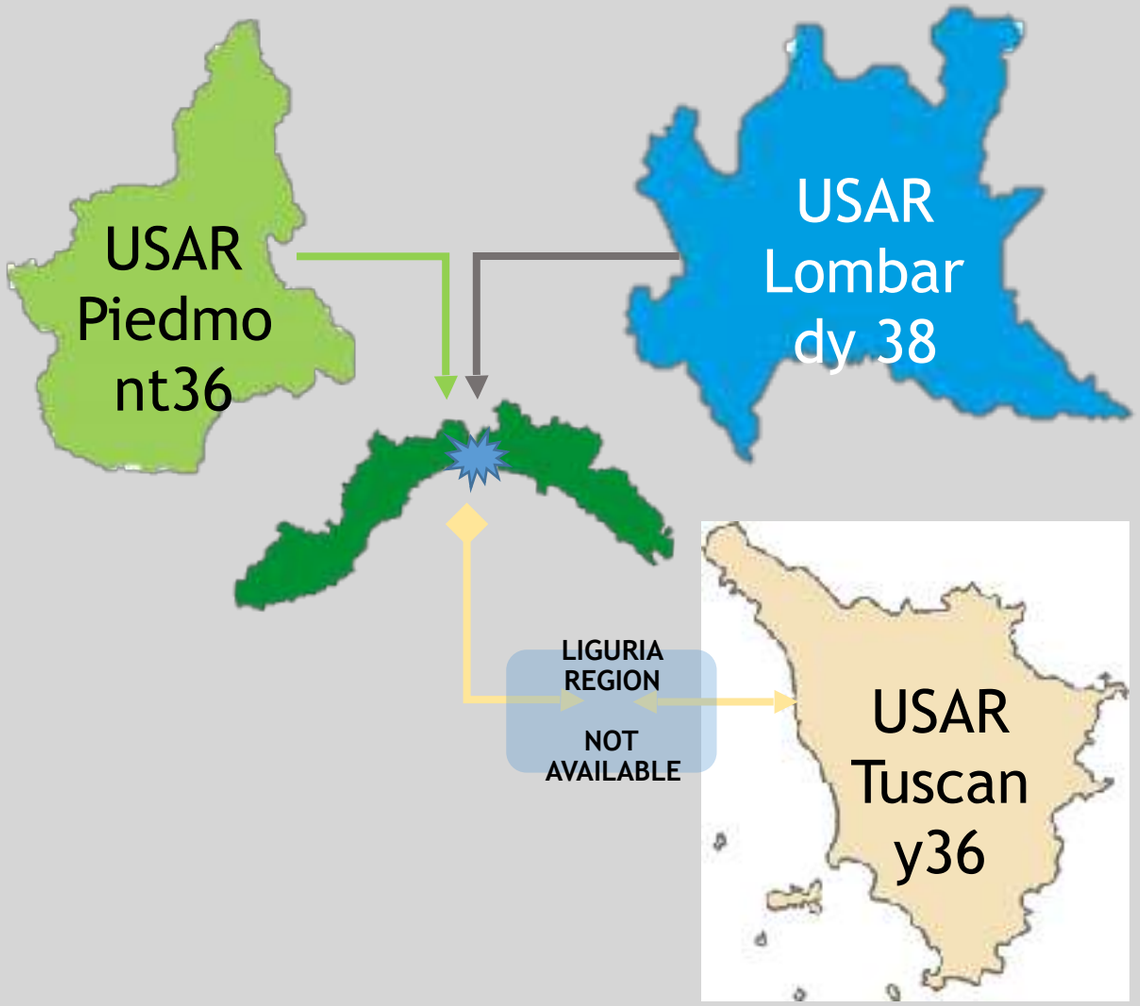
Luciano Roncalli

Milan Fire Officer - USAR ITA-1 Planning Manager

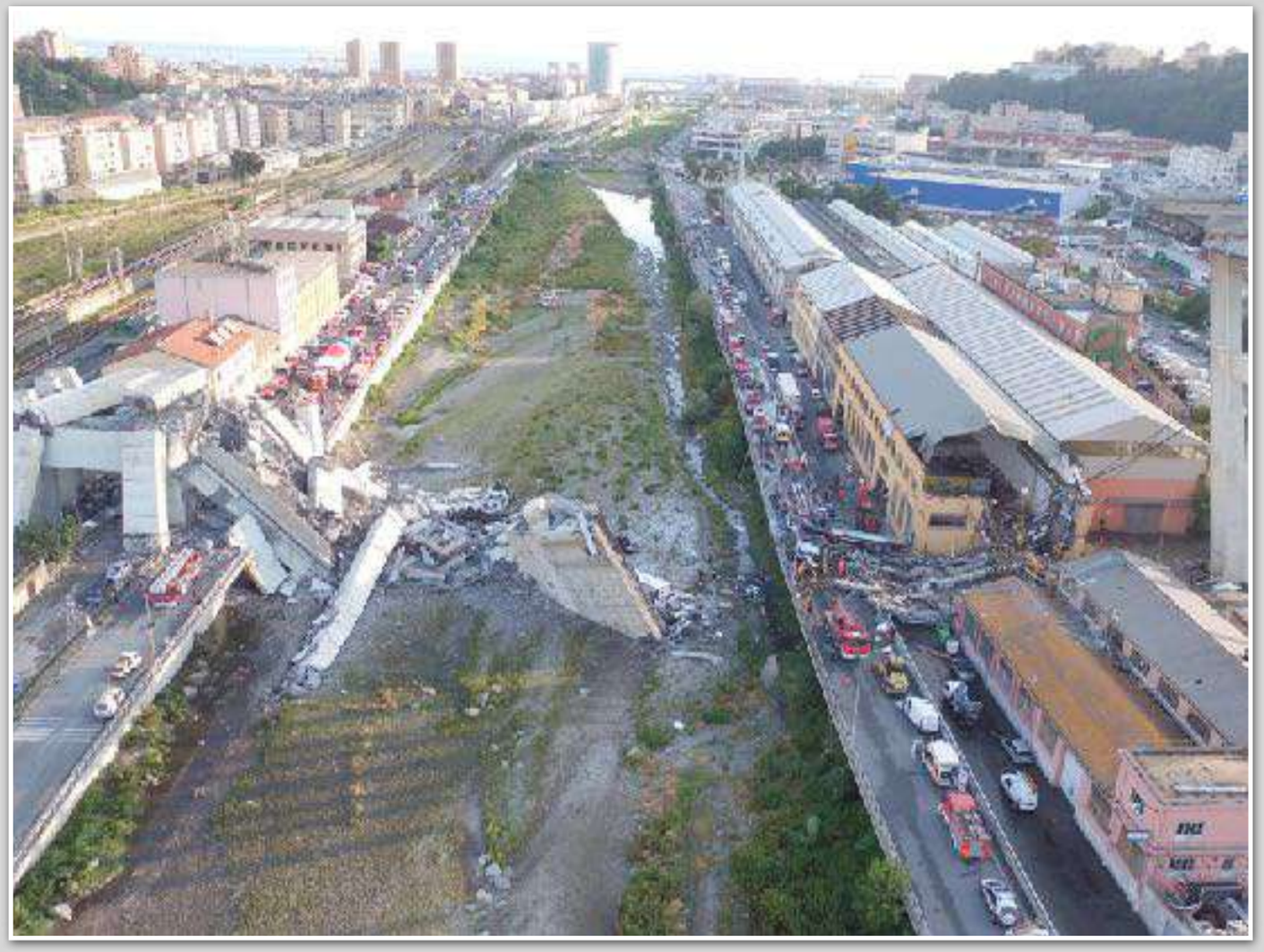
INSARAG SECRETARIAT

Italian National Fire and Rescue Service – Italian Civil Protection Department

USAR DEPLOYMENT



ALARM AND DEPLOYMENT	**12:30**
FIRST USAR TEAM ON-SITE	14:00
FULL USAR TEAM SIZE UP	**15:00**
ADVANCED COMMAND POST	16:45










Vigili del Fuoco


Vigili del Fuoco





OTHER PARTICIPATING AGENCIES ON-SITE

Polizia di Stato

POLIZIA SCIENTIFICA

CARABINIERI

GUARDIA di FINANZA

PM GENOVA
Polizia Municipale

118
LIGURIA soccorso

CONVENZIONE DI GINEVRA 22 AGOSTO 1864
Croce Rossa Italiana

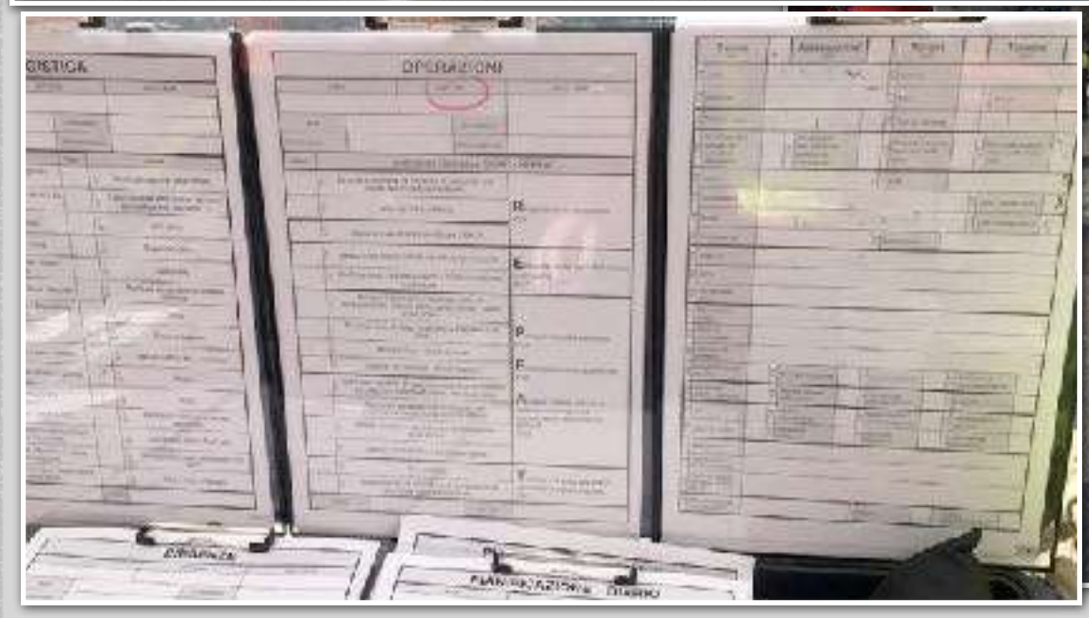
AREU
AZIENDA REGIONALE EMERGENZA URGENZA
Regione Lombardia



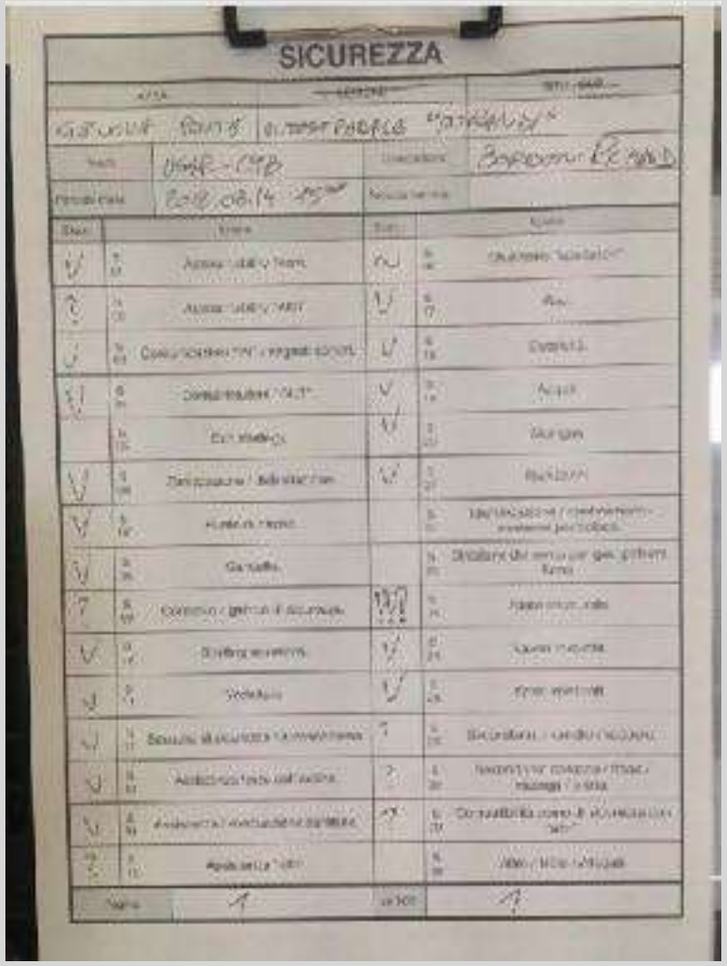
USAR - ADVANCED COMMAND POST

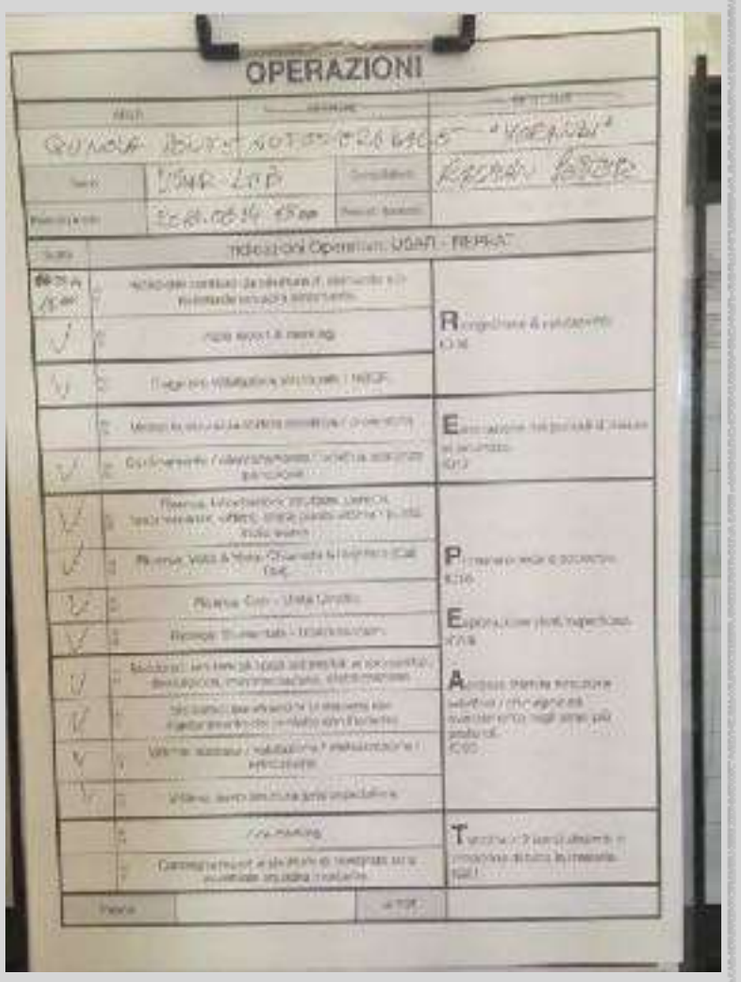







PIANIFICAZIONE - DIARIO
EVENTO CROLLO
ARRIVO IN POSTO
ATTIVAZIONE PCA
RESCONTO


SICUREZZA


OPERAZIONI

USAR - ADVANCED COMMAND POST







USAR - ADVANCED COMMAND POST



USAR - ADVANCED COMMAND POST



USAR ORGANIGRAM

MEDICAL STAFF	LOMBARDY
Med. Officers	5
Doctors	9
Nurses	11
Total	**25**

COMMAND	UNITS
Bergamo	12
Brescia	10
Milano	11
Pavia	5
Totale	**38**

FF RANK	UNITS
DVD - Officer	1
IA - Sub-Officer	1
CRE - Station MGR	2
CSE - Crew Command	7
VC - Dep. Crew Com.	5
VE - Leading FF	4
VQ - FF	12
VF - FF	6
Total	**38**

LIAISON OFFICER	PLANNING OFFICER
1 DVD	1 IA

RESCUE LEADER	DEPUTY RESCUE LEADERS	LOGISTICS
1 CS	1 CS 1 VF	1 CR

ACP	TEAM ALPHA	TEAM BRAVO
6 VF	3 CS 10 VF	3 CS 10 VF

USAR – SHIFT PLAN

- **Split into 3 teams:**

→ Alpha;

→ Bravo;

→ ACP;

- **8 hour shift:**

→ 8 hour operational;

→ 8 hour rest;

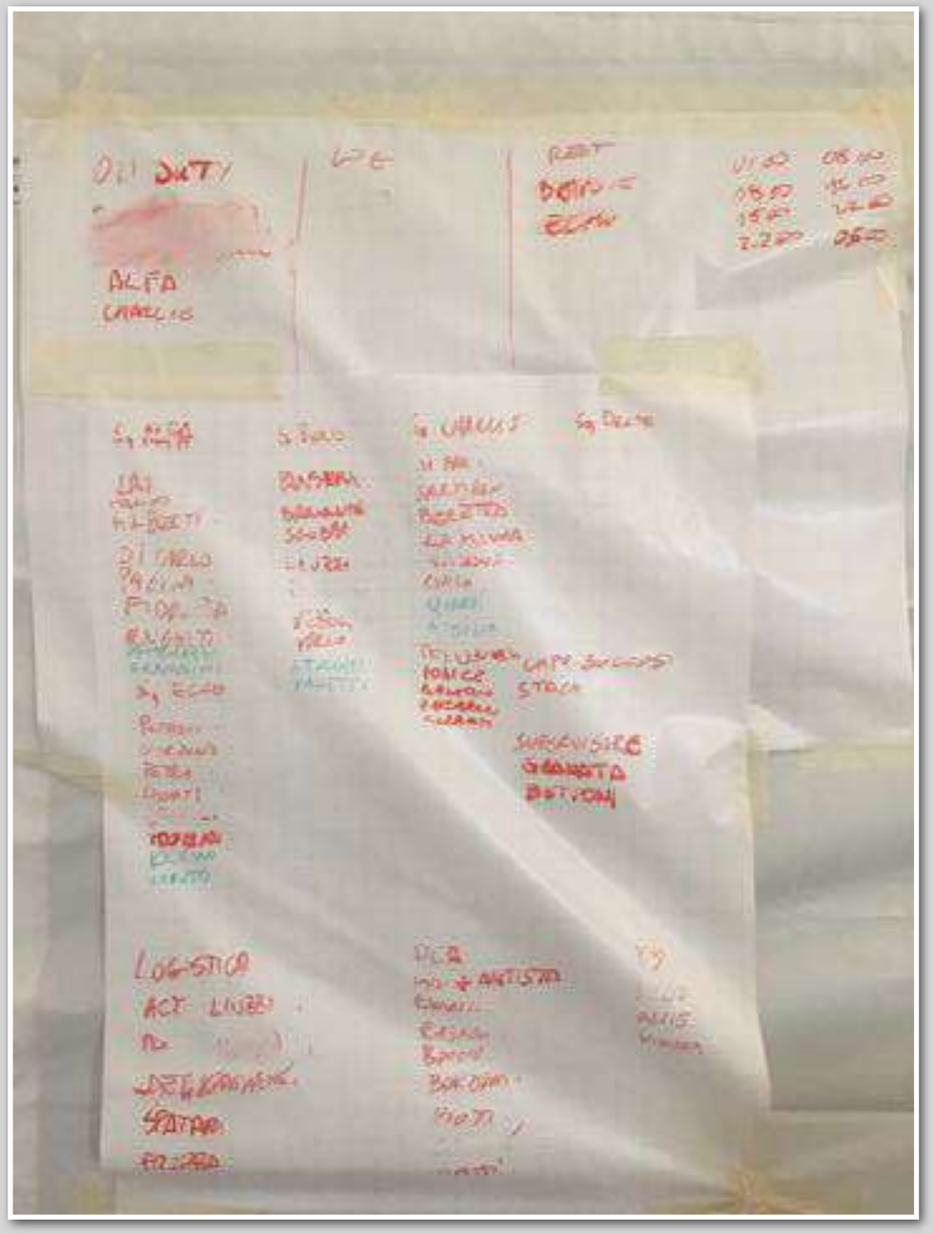
- **Alpha e Bravo teams carried out:**

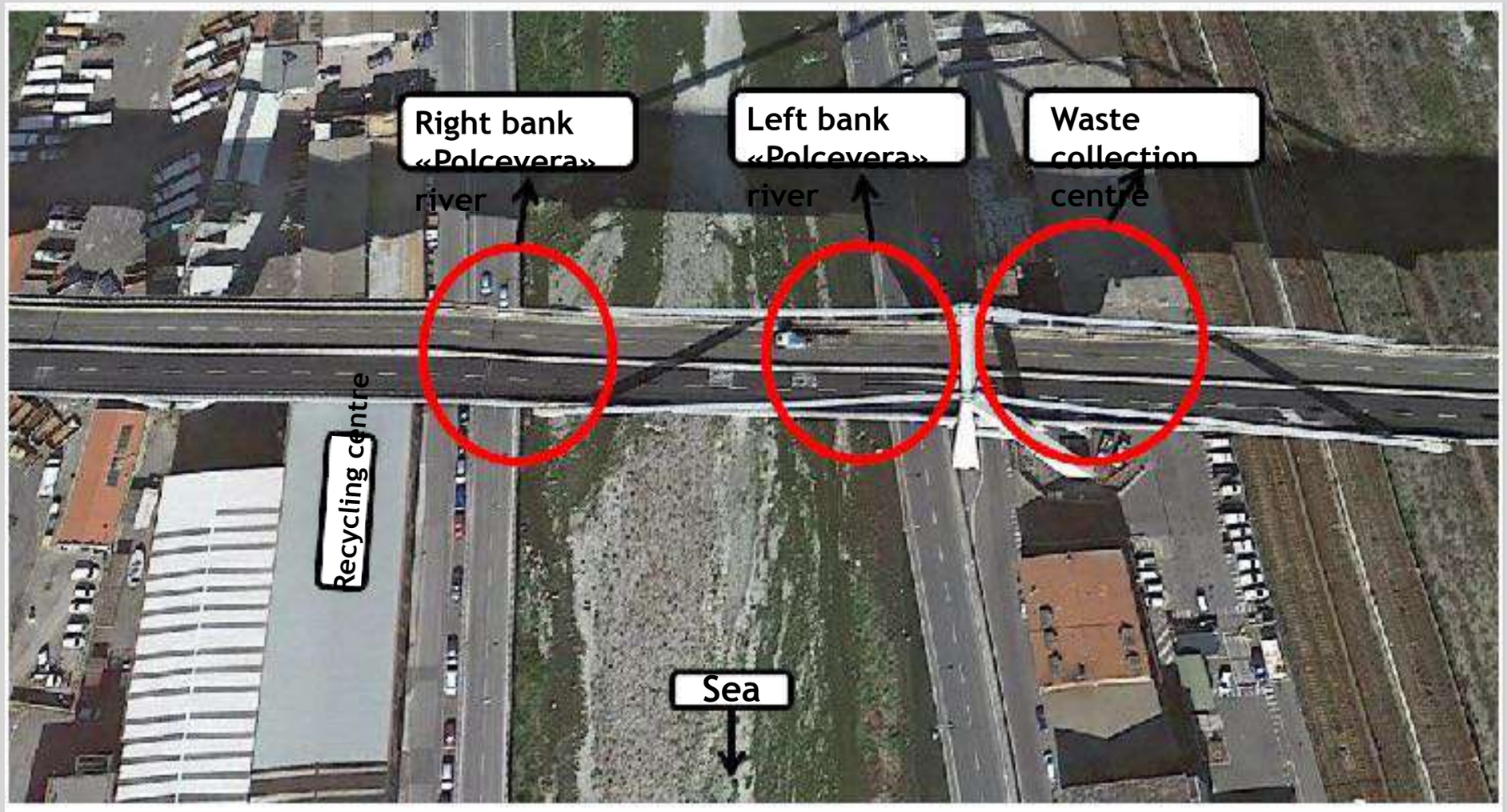
→ Assessment;

→ Search and Rescue;

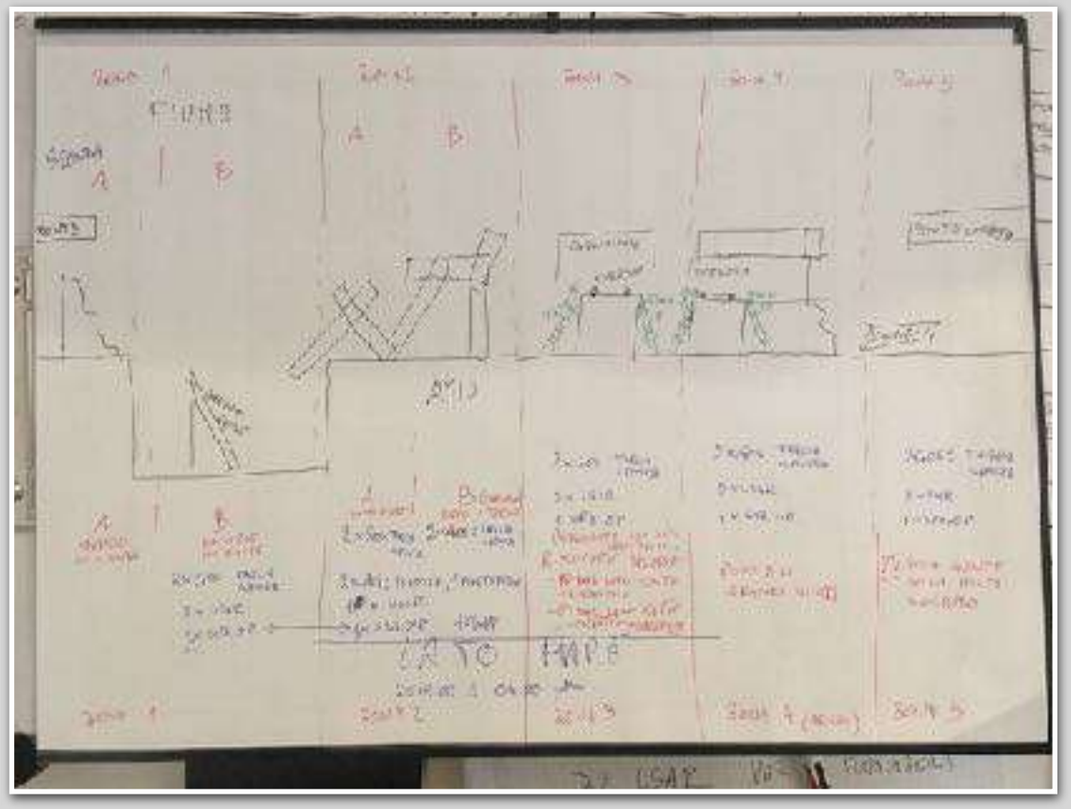
→ Logistics;

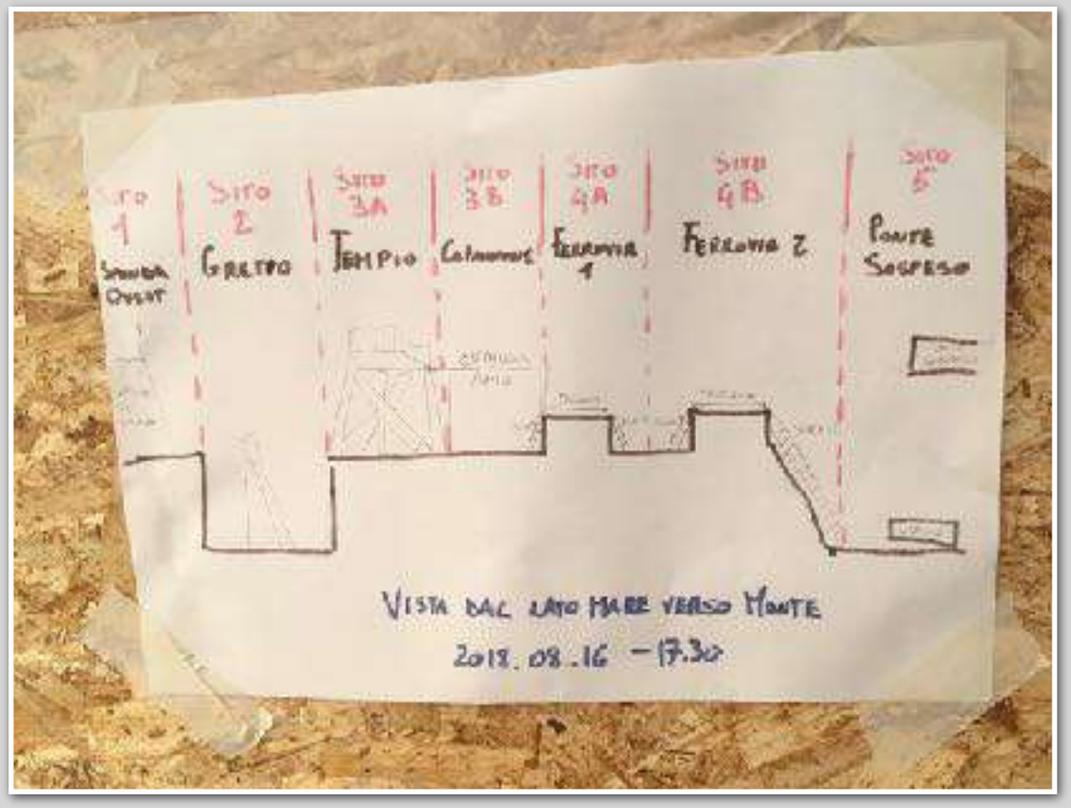
→ Safety and Security.

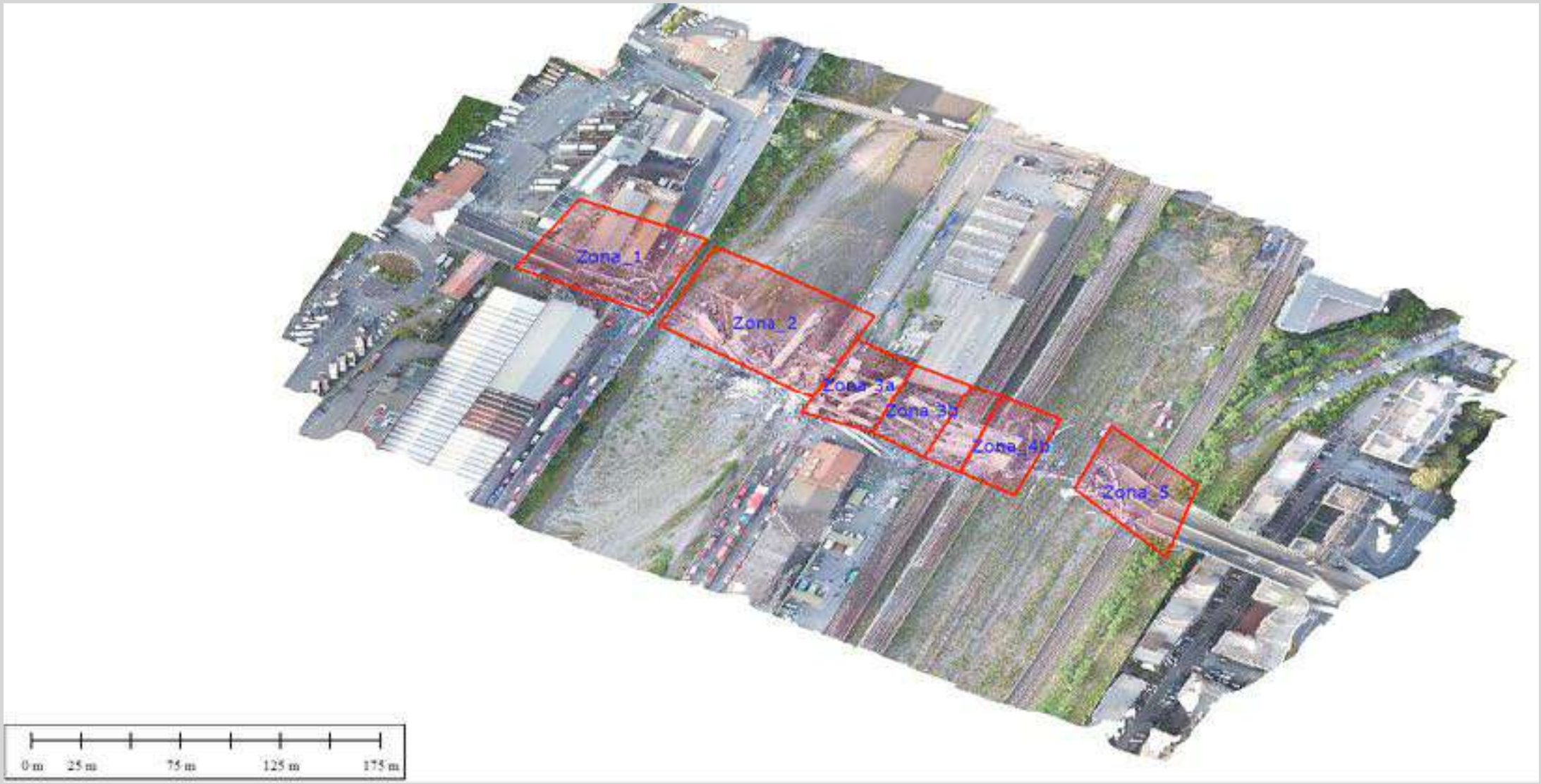


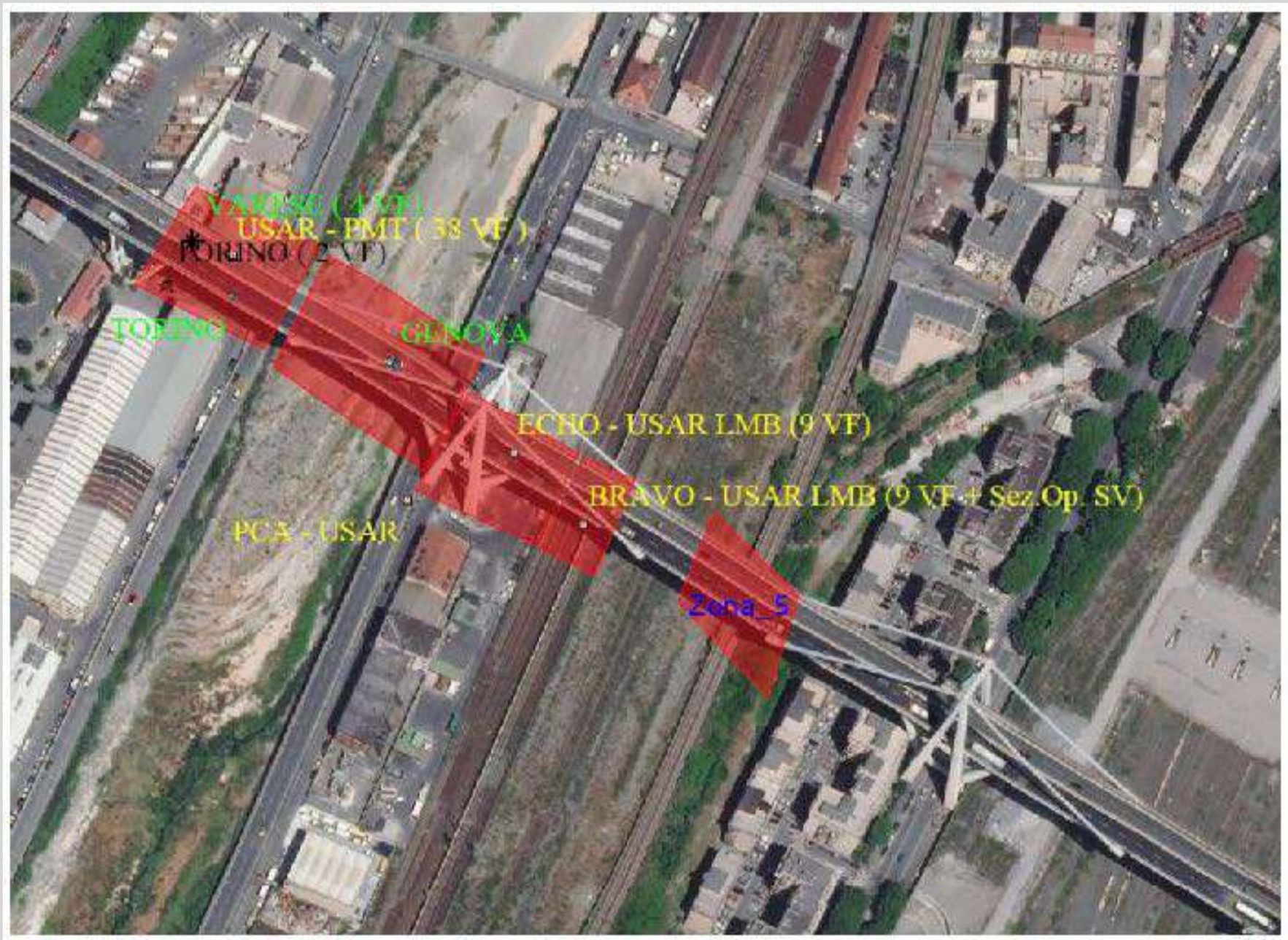

Right bank «Polcevera» river
Left bank «Polcevera» river
Waste collection centre
Recycling centre
Sea

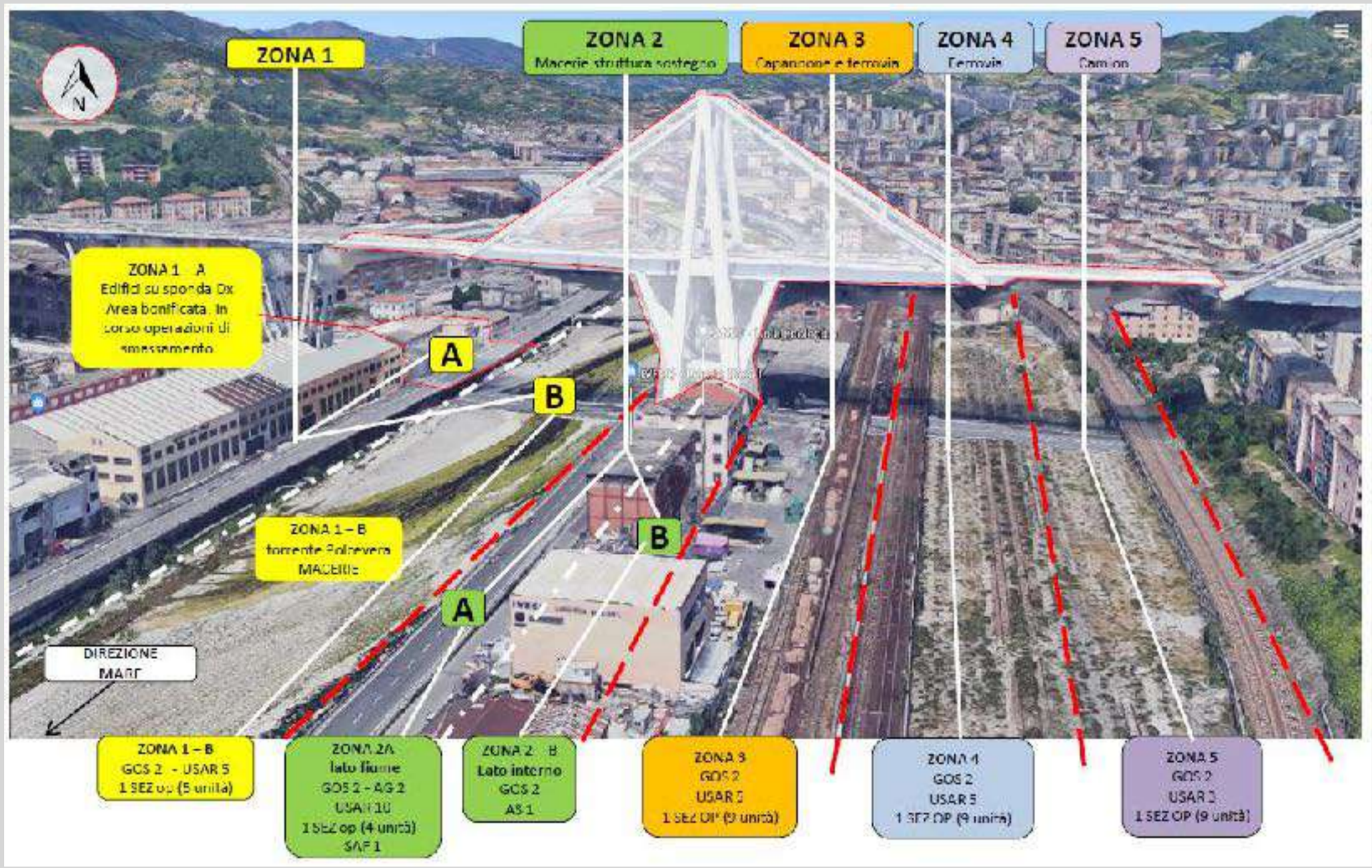
USAR OPERATIONAL AREA'S



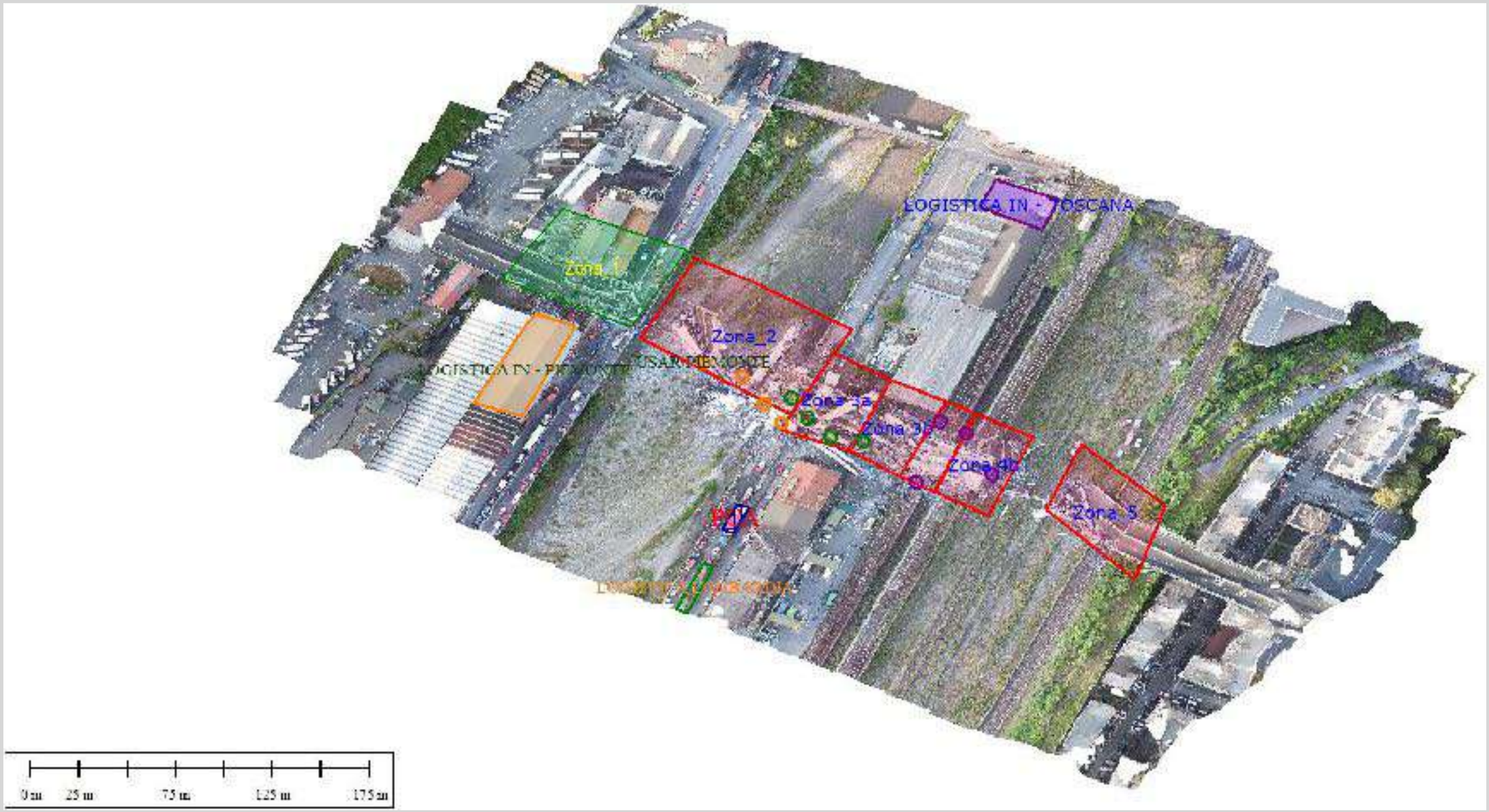


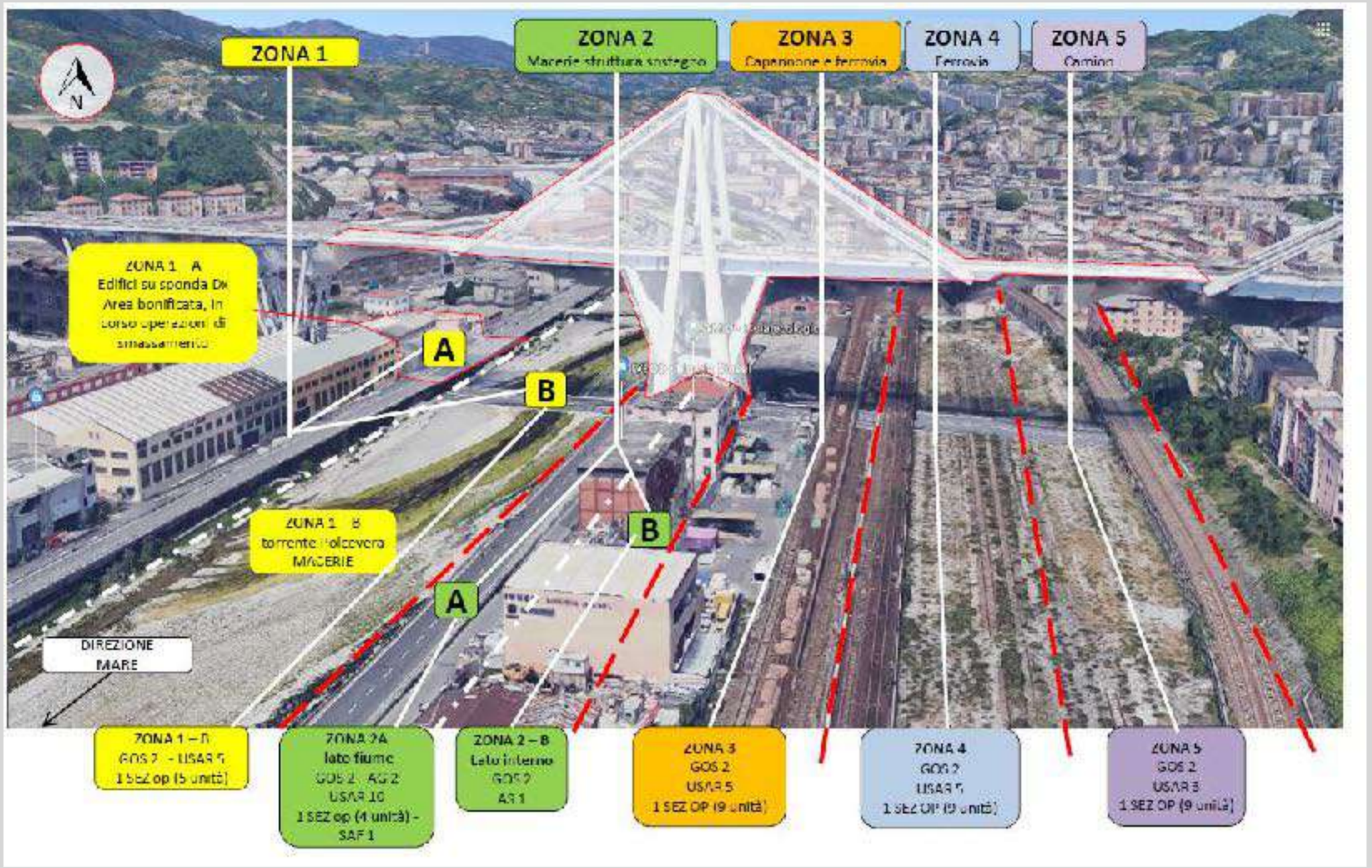

Zona_1
Zona_2
Zona_3a
Zona_3b
Zona_4b
Zona_5
0 m
25 m
75 m
125 m
175 m


VARESE (4 VF)
USAR - PMT (38 VF)
TORINO (2 VF)
TORINO
GENOVA
ECHO - USAR LMB (9 VF)
BRAVO - USAR LMB (9 VF + Sez.Op. SV)
PCA - USAR
Zona_5

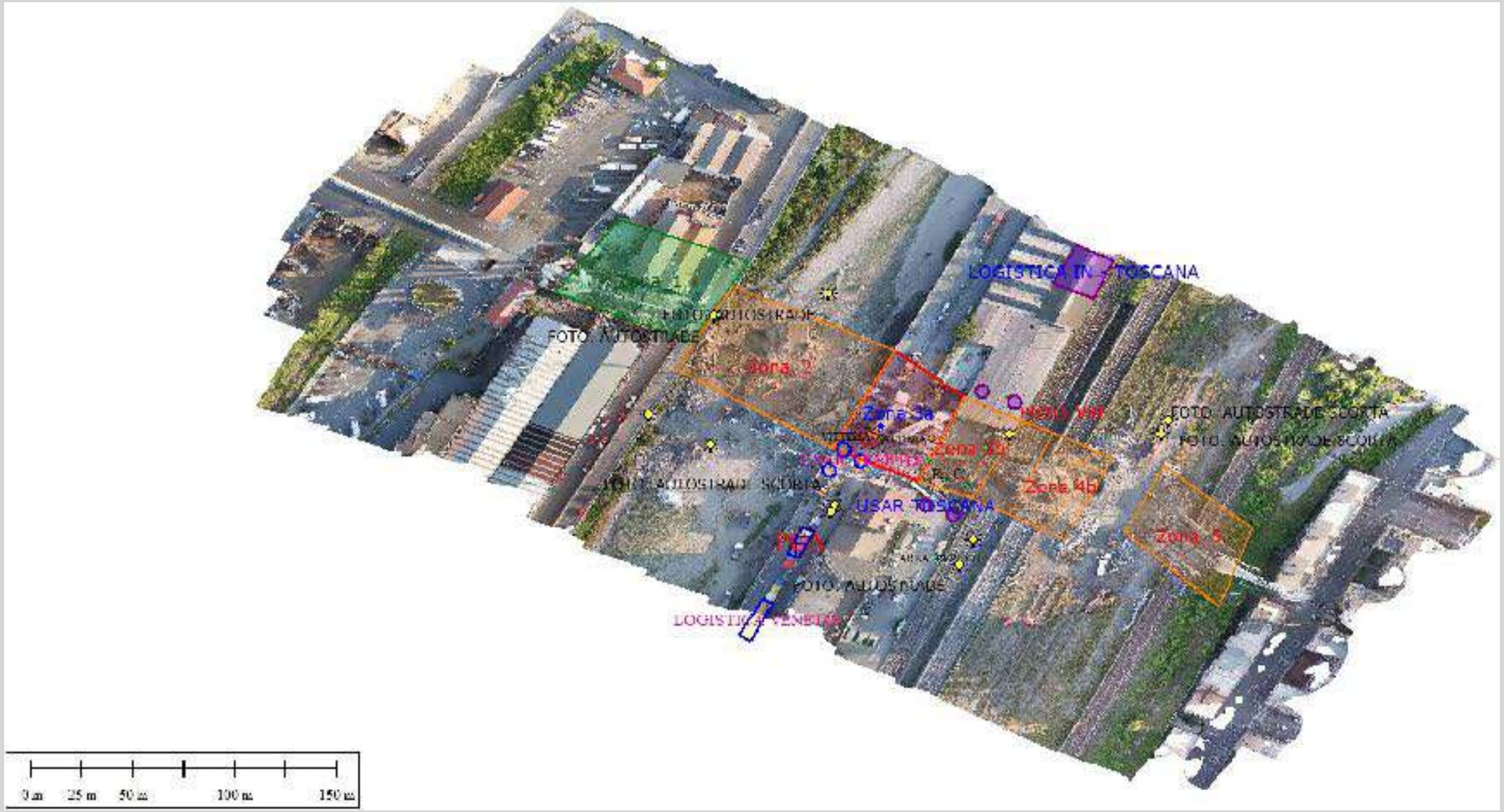


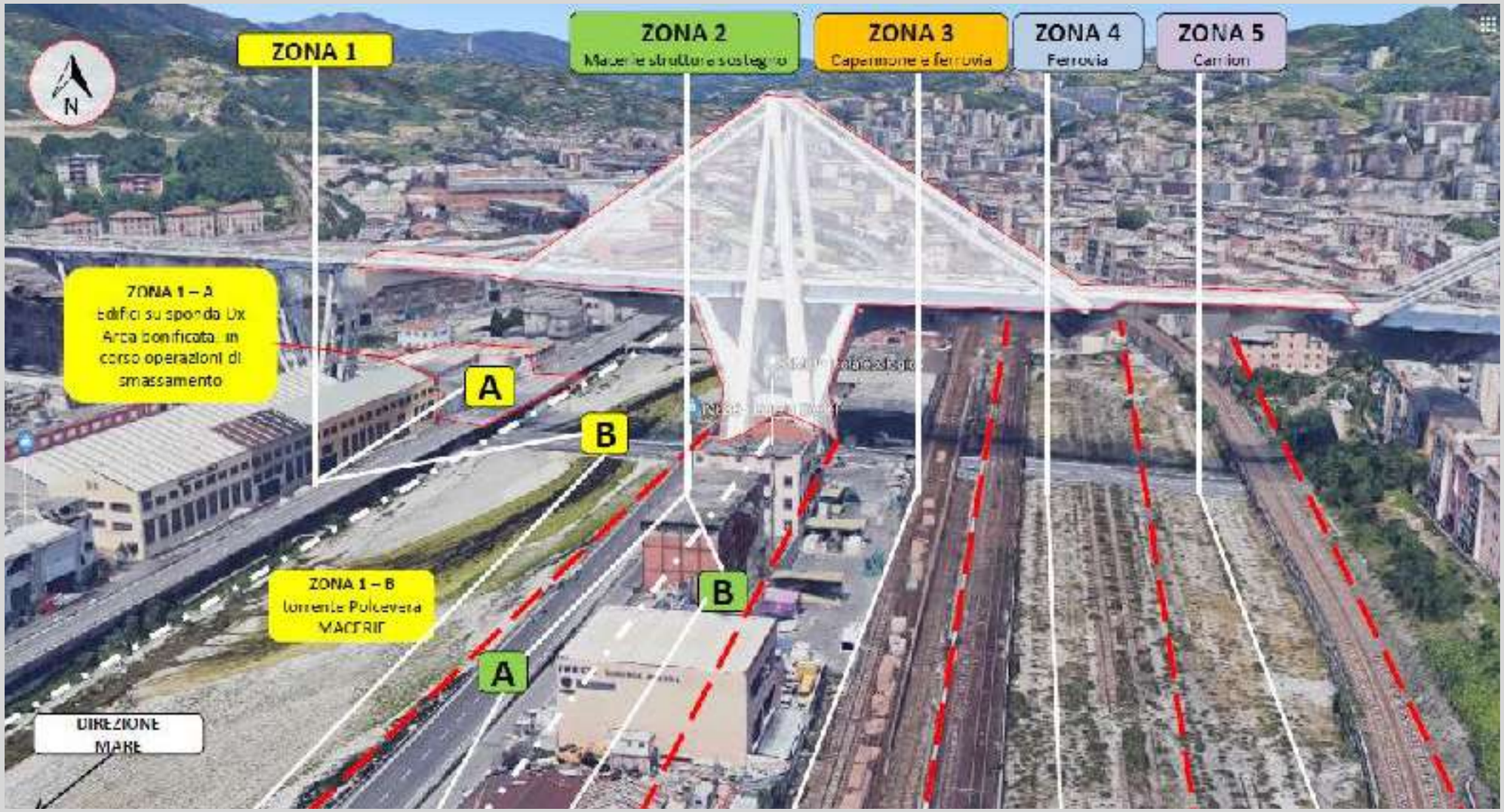
15th AUGUST @ 23:00


LOGISTICA IN - TOSCANA
Zona_1
Zona_2
Zona_3a
Zona_3b
Zona_4b
Zona_5
0 m
25 m
75 m
125 m
175 m



16th AUGUST @ 20:00


LOGISTICA IN TOSCANA
FOTO AUTOSTRADE SCORTA
Zona 3a
Zona 3b
Zona 4b
Zona 5
USAR TOSCANA
0 m
25 m
50 m
100 m
150 m



17th AUGUST @ 20:00


LOGISTICA IN - TOSCANA
FOTO AUTOSTRADE
Zona 1
Zona 3a
Zona 3b
Zona 3c
Zona 4
FOTO AUTOSTRADE SCORTA
USAR TOSCANA
0 m
25 m
50 m
100 m
150 m

COLLABORATION OF OTHER ENTITIES

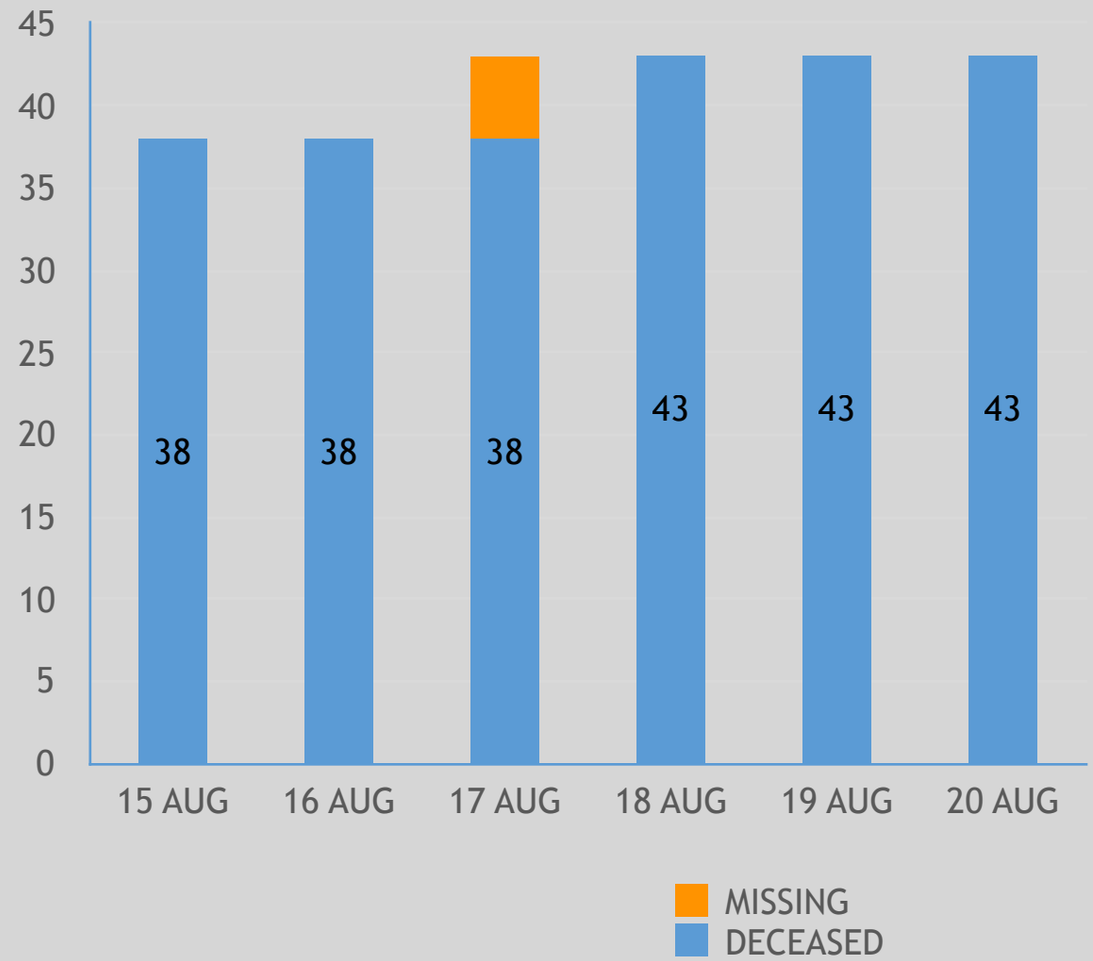
USAR – INTELLIGENCE





USAR – INTELLIGENCE

DATE	TIME	MISSING PERSONS (ESTIMATE)
14/08/2018	20:30	39
15/08/2018	01:30	53
15/08/2018	14:00	86
15/08/2018	20:00	86
16/08/2018	12:00	16
16/08/2018	18:00	13
16/08/2018	23:00	12
17/08/2018	14:00	5



THECHNICAL SEARCH



USAR – MARKING SYSTEM






CAT
AREU
USAR-LMB
230


COEM-Comunicazione in Emerge


VERNAZZA
COEM-Comunicazione in Emergenza

