

## REINFORCED CONCRETE CONTAINER FOR II & V MILITARY SUPPLY CLASS STORAGE

### TECHNICAL DATA SHEET

#### Advantages

EN1143-1 resistance grade VIII  
Exceeds AASTP-1 medium storage building spacing requirements  
IBD=0(m) at max 2(kg) of TNT  
Mobile and autonomous with controlled climate\*  
Optimized for use with common forklift loading equipment

#### Technical data

Dimensions: 2.66m X 2.38m X 1.82m.  
Wall thickness: 190-160(mm)  
Weight: 13 000(kg)  
C 60/75 concrete with classic and dispersed reinforcement  
Innovative and optimized reinforcing schedule  
Doorway (1.8m X 1.7m) with a flush threshold for easy pallet loading/unloading with a forklift  
Two independent door locks  
Waterproof door and lock design (IP 55)  
Rugged, vandal-proof door designed to withstand abuse and extreme weather  
Dust repellent and antistatic coating  
Fire safety rating RE 120\*\*  
FR-7 bullet resistance class (EN-1522)\*\*\*

#### Mobile

Can be transported via crane truck or front loader  
Recessed lifting anchors permit vertical stacking  
Lifting anchors designed to safely permit transporting on uneven terrain

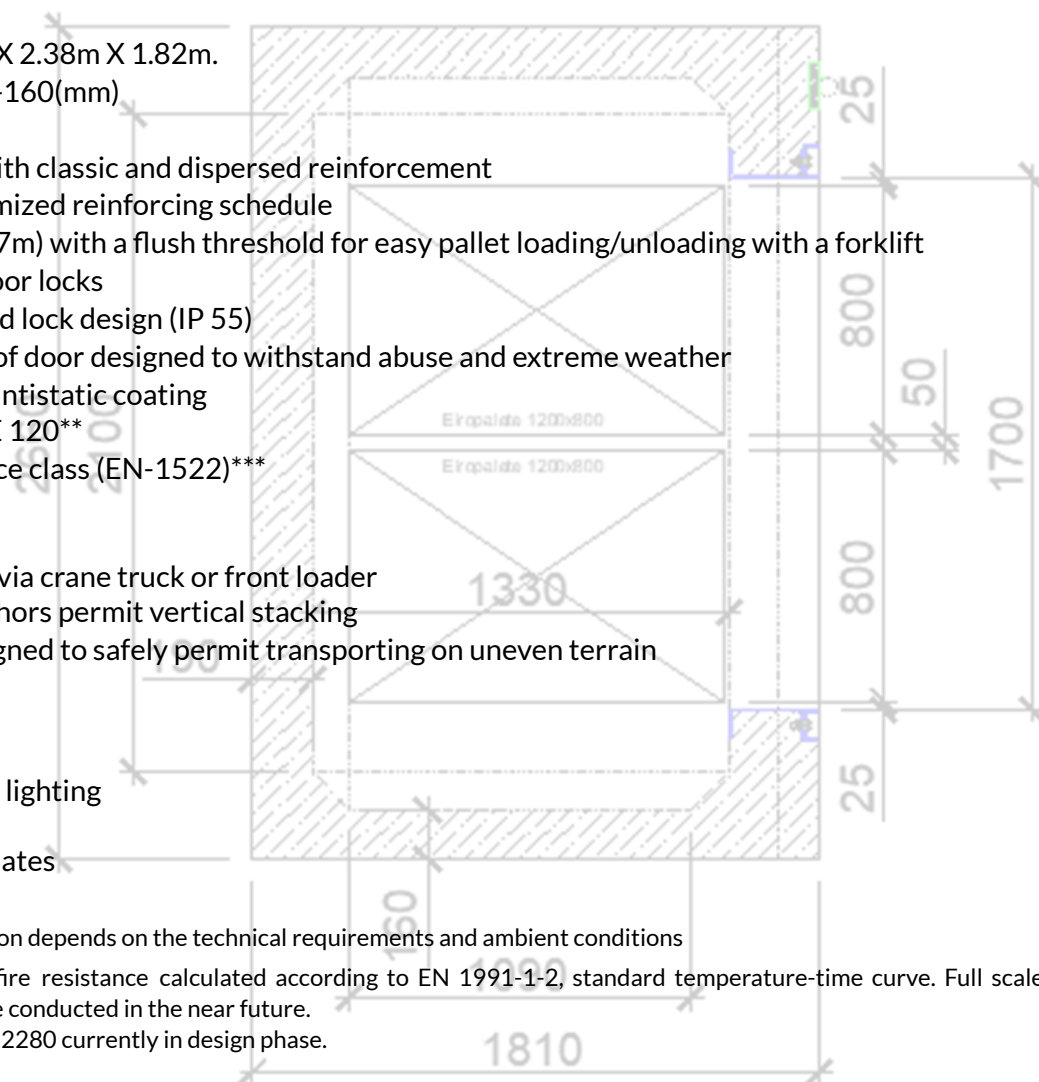
#### Additional options

HVAC solutions\*  
Autonomous indoor lighting  
Grounding system  
AASTP-1 marking plates

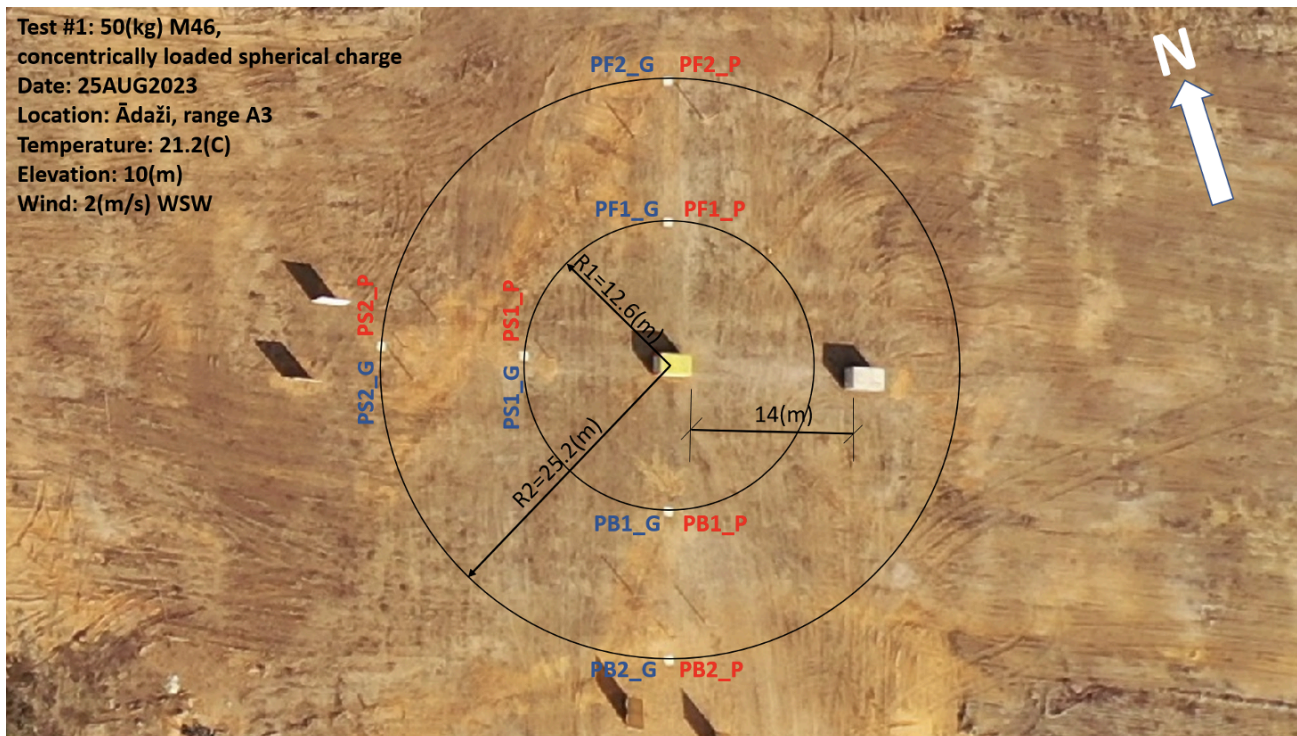
\* A specific HVAC solution depends on the technical requirements and ambient conditions

\*\* Structure and door fire resistance calculated according to EN 1991-1-2, standard temperature-time curve. Full scale validation test will be conducted in the near future.

\*\*\* Tests as per STANAG 2280 currently in design phase.

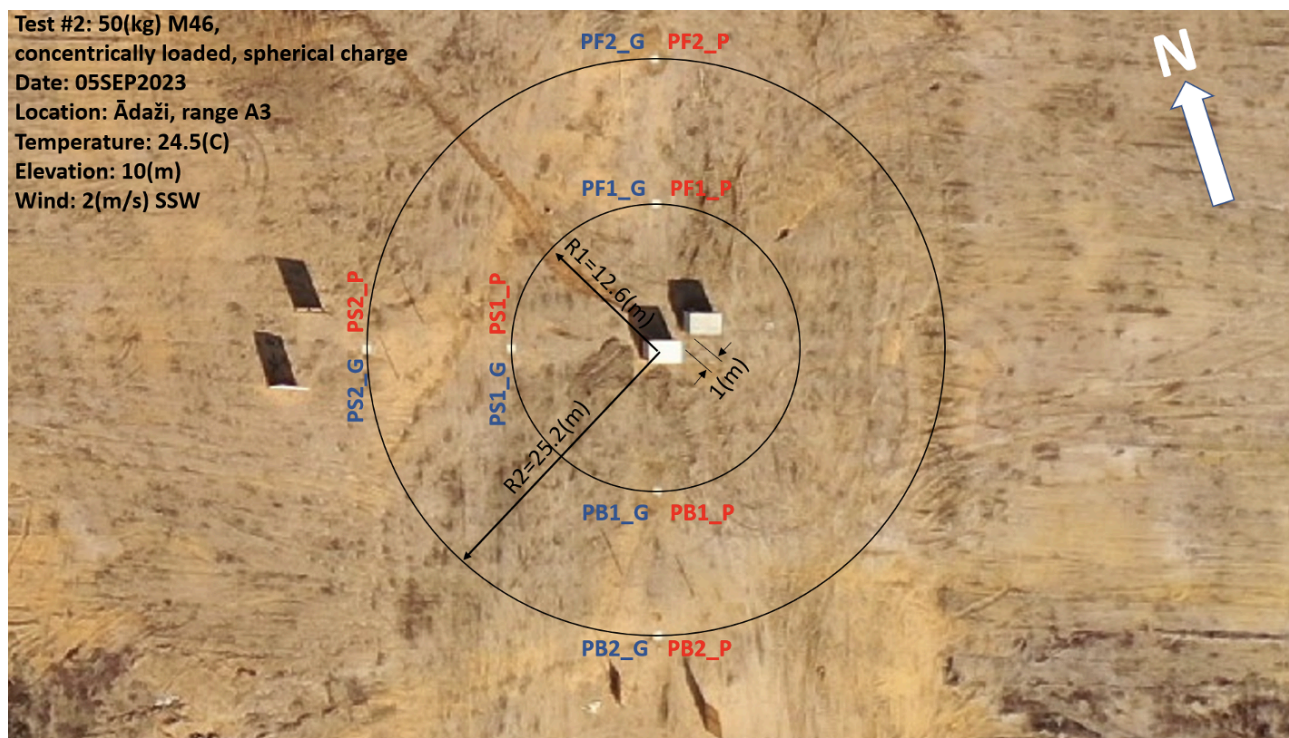


Test #1: 50(kg) M46,  
concentrically loaded spherical charge  
Date: 25AUG2023  
Location: Ādaži, range A3  
Temperature: 21.2(C)  
Elevation: 10(m)  
Wind: 2(m/s) WSW

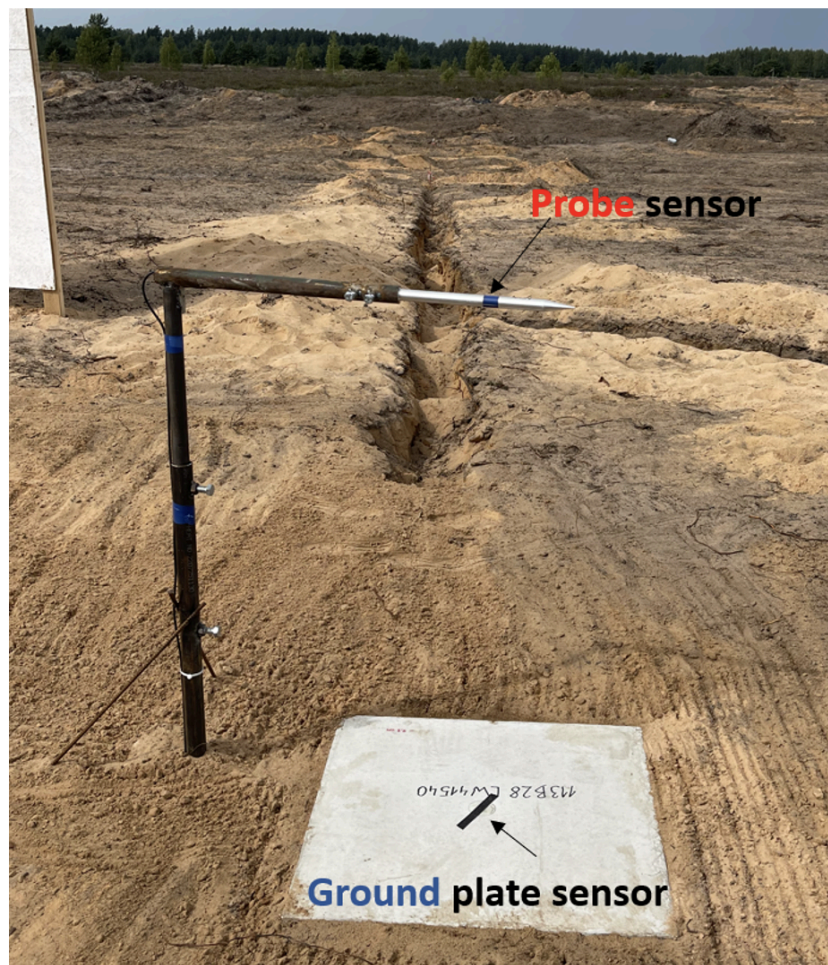


**Figure 9.** Test #2. 50(kg) M46. Containers staggered, 1(m) apart.





**Figure 10.** Test #2 setup; drone view. Container No.2 loaded with 50(kg)\_M46, exposed site at 1(m).



**Figure 13.** Pressure sensing station. Sensors covered with pvc electrical tape to delay heat transfer.







**Figure 19.** Test #2. Venting through the shear lines and side wall splitting vertically

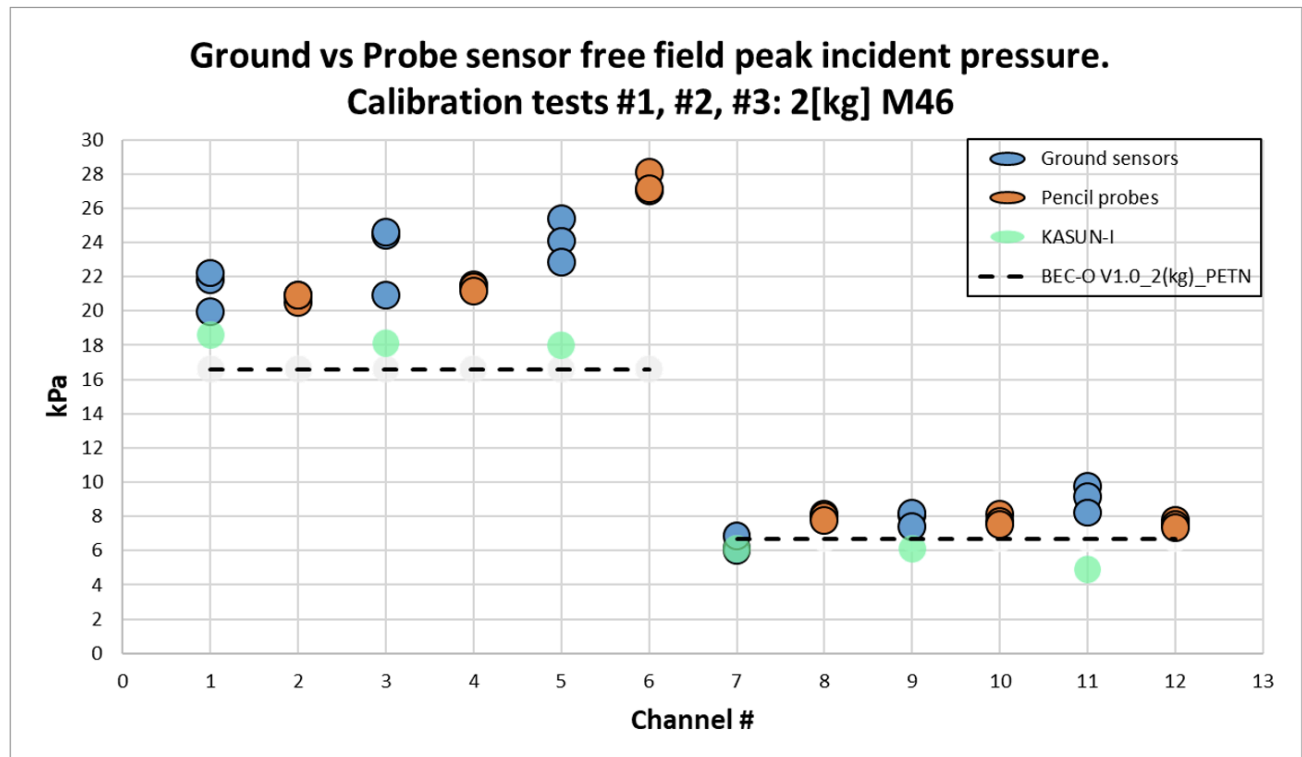


**Figure 20.** Test #1. Back wall rolling through the field of view of a high-speed camera facing 0° bearing to observe the left side wall fragments. Inside face towards the camera. Compression failure visible.

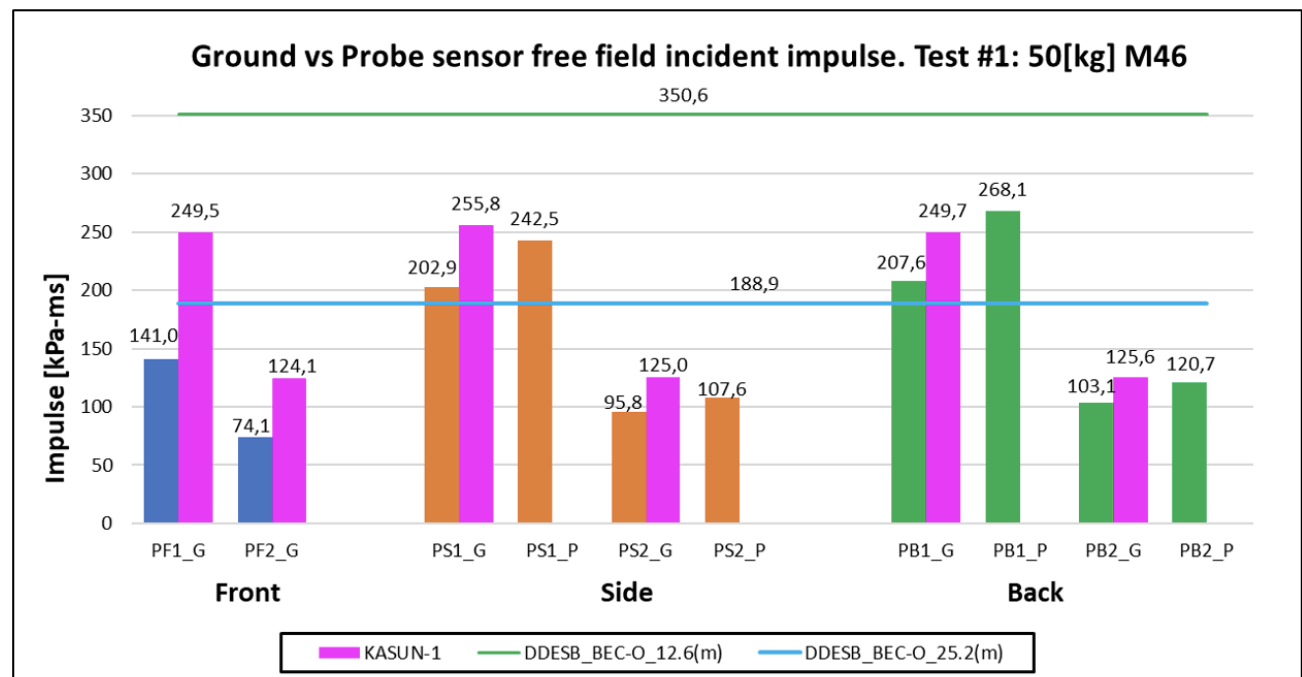




***Figure 21. Test #2. Impact marks on the ES from the corner fragment of PES.***

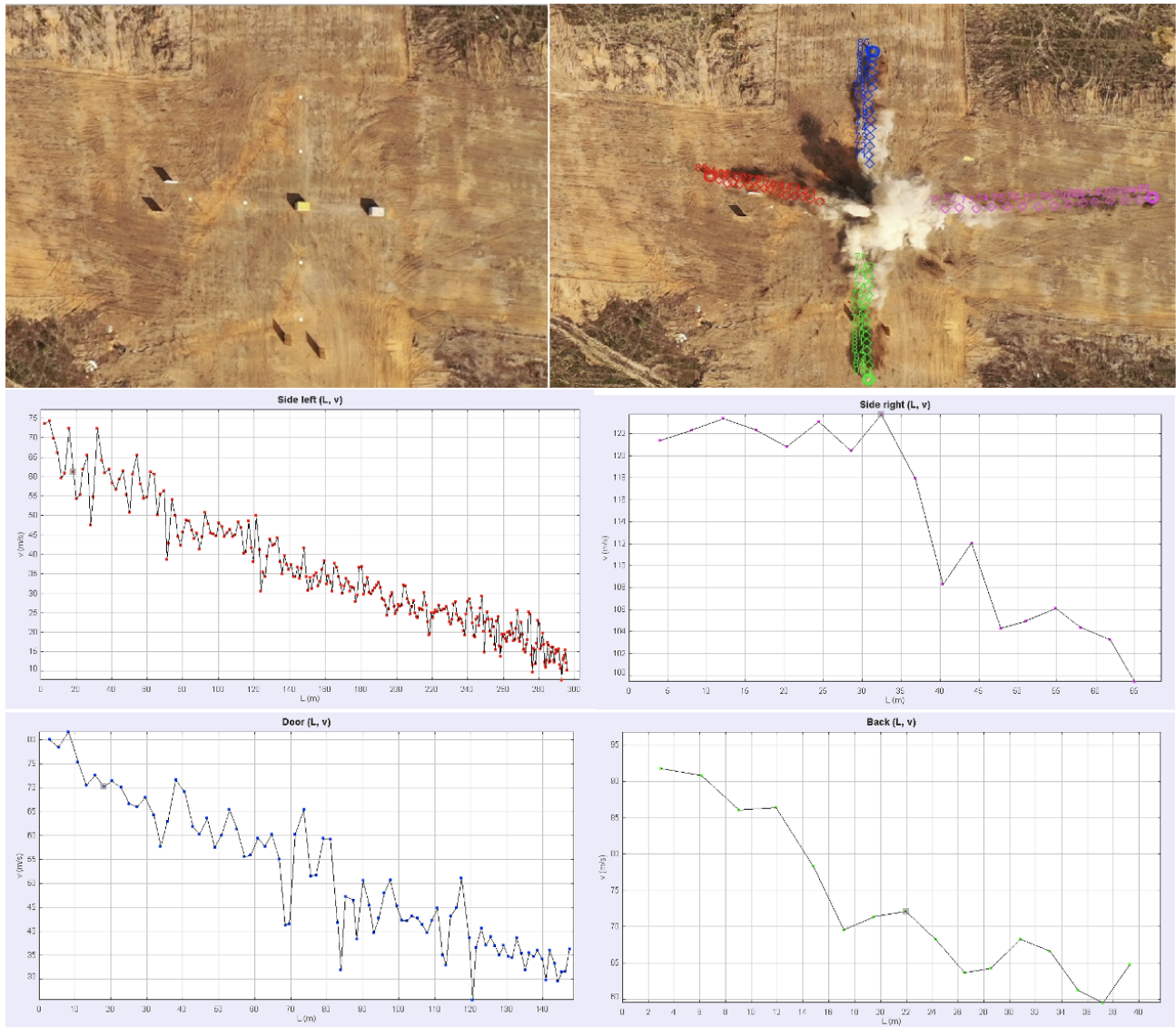


**Figure 22:** Calibration tests. Ground vs probe sensor free field incident pressure. KASUN-I and BEC-O values provided for reference.

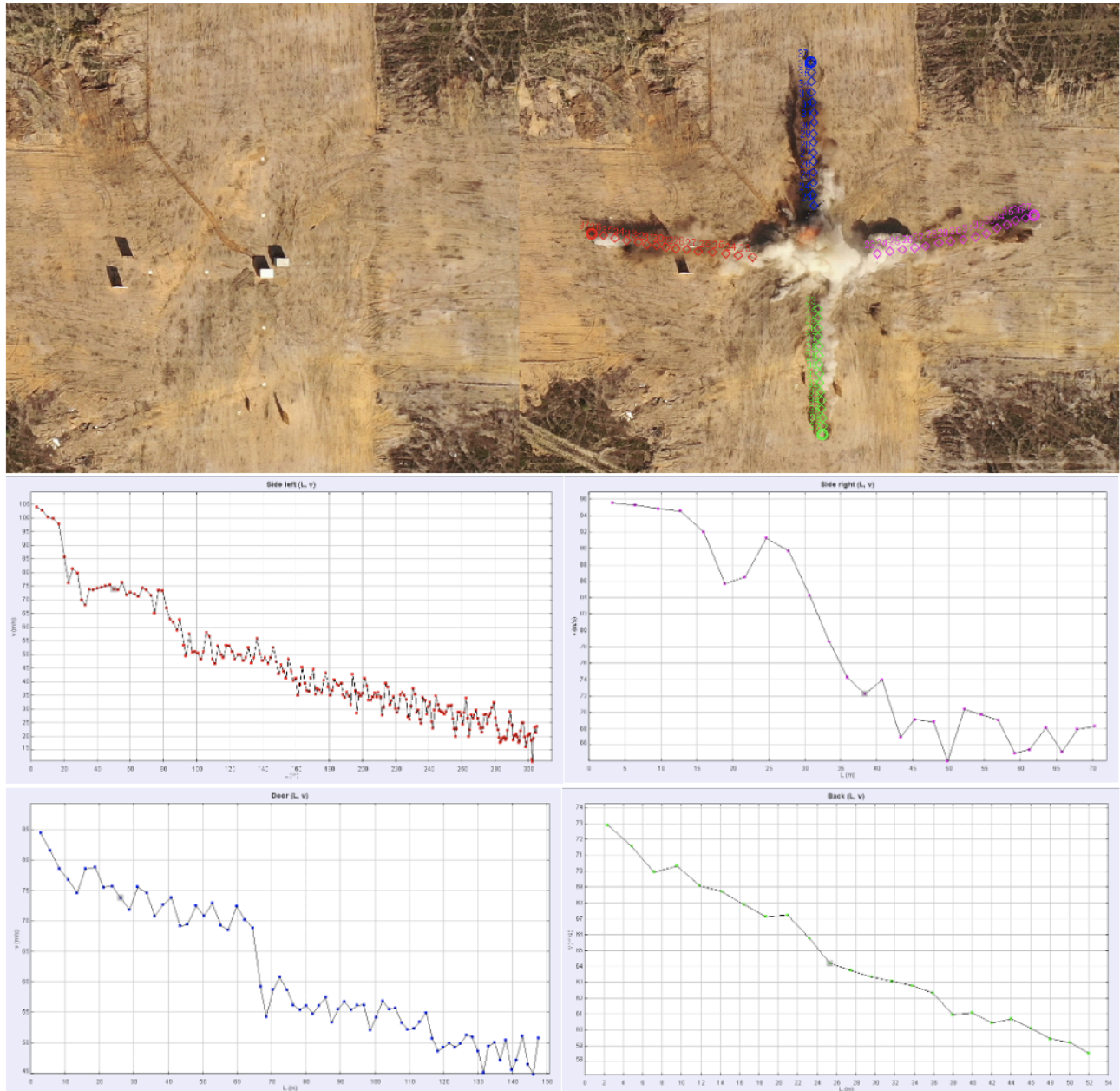


**Figure 25.** Test #1. Free field total impulse (positive phase). Color-coded principal directions. KASUN-I and BEC-O\_50(kg) PETN values provided for reference.





**Figure 28. Test #1. Distance traveled (m) vs velocity (m/s) of all four large fragments.**



**Figure 29. Test #2. Distance traveled (m) vs velocity (m/s) of all four large fragments.**



## Test #2. Debris map

