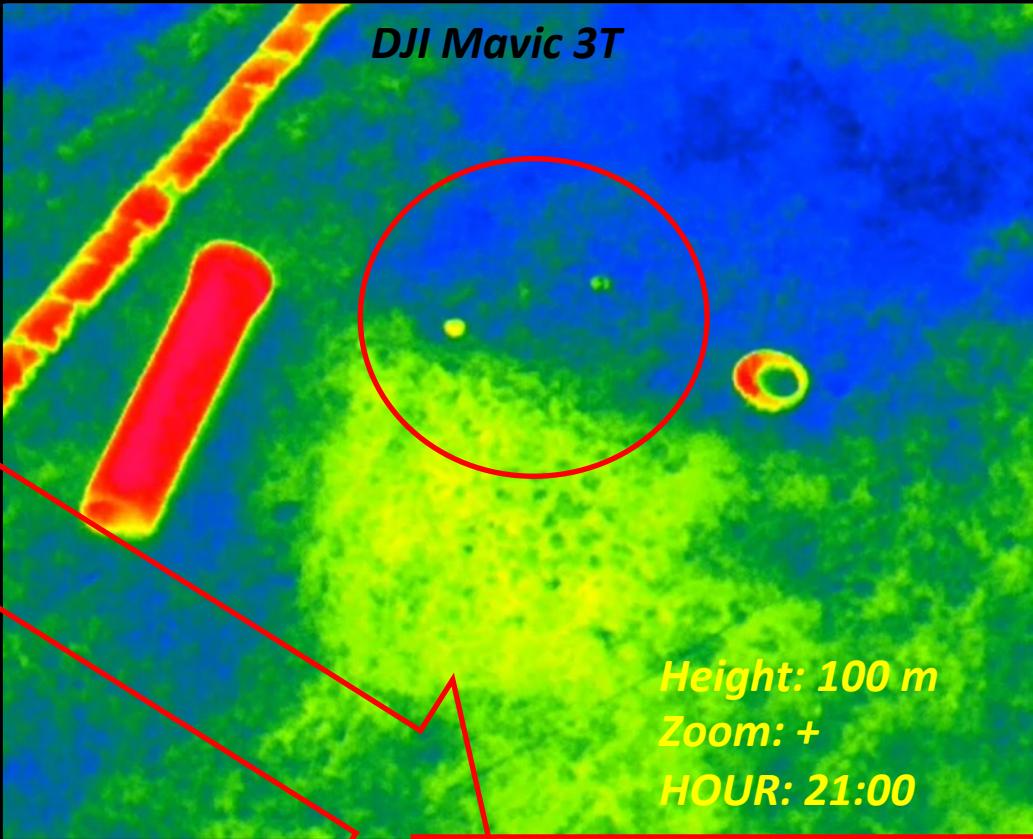
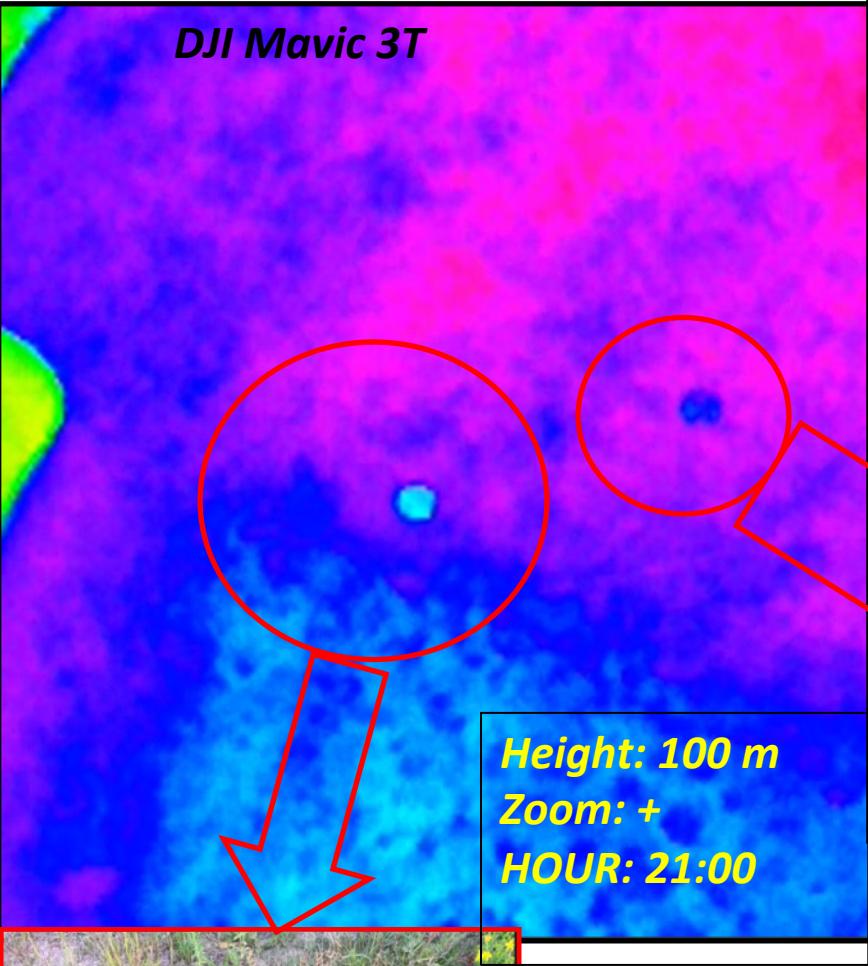


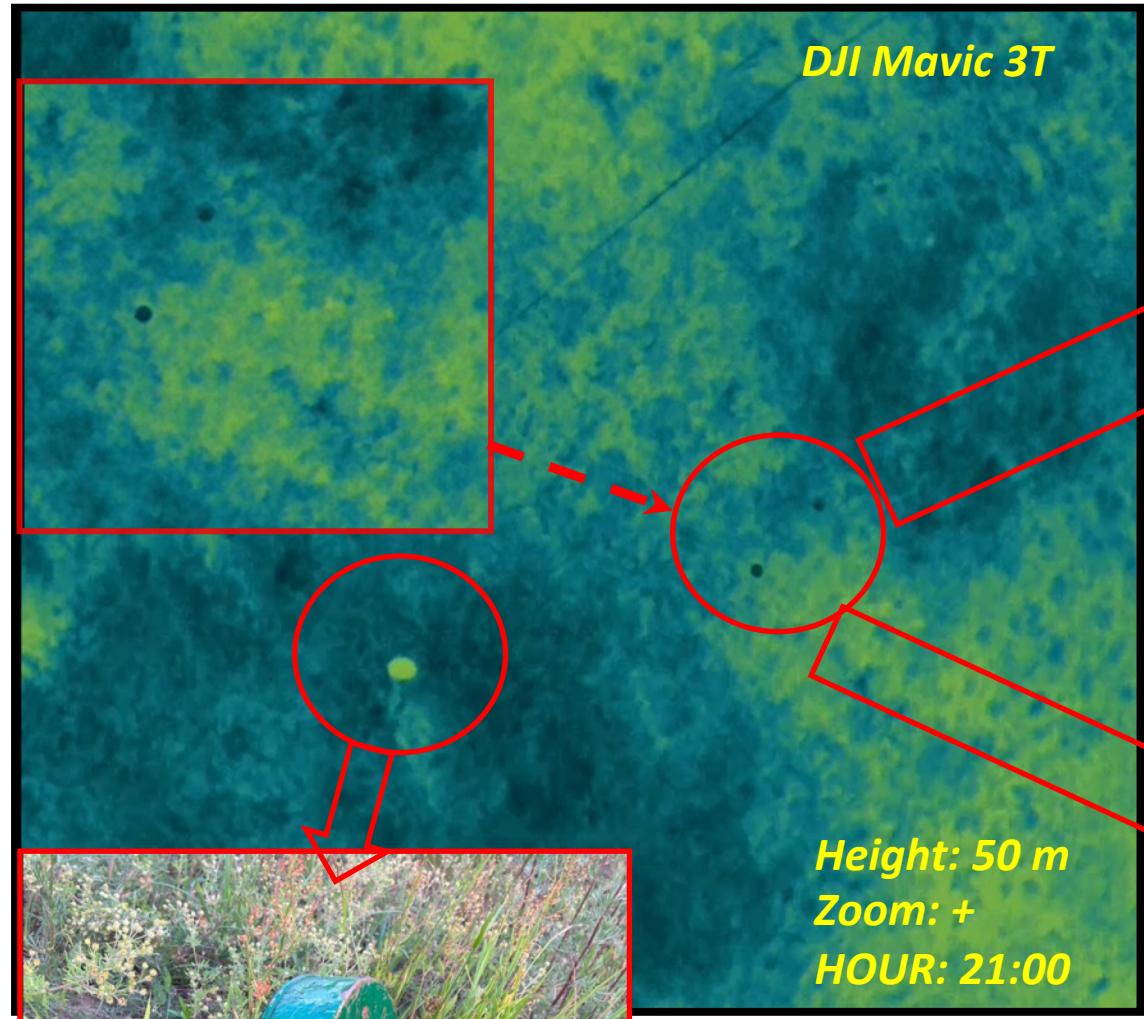
DJI Mavic 3T

DJI Mavic 3T



- *Mine site: moderate vegetation
- *Air temperature: +18-+20
- *without camouflage, on the ground
- *Observation angle: 80°





- *Mine site: moderate vegetation
- *Air temperature: +18-+20
- *without camouflage, on the ground
- *Observation angle: 90°

DJI Mavic 3T

Height: 16-25 m
Zoom: +
HOUR: 21:00

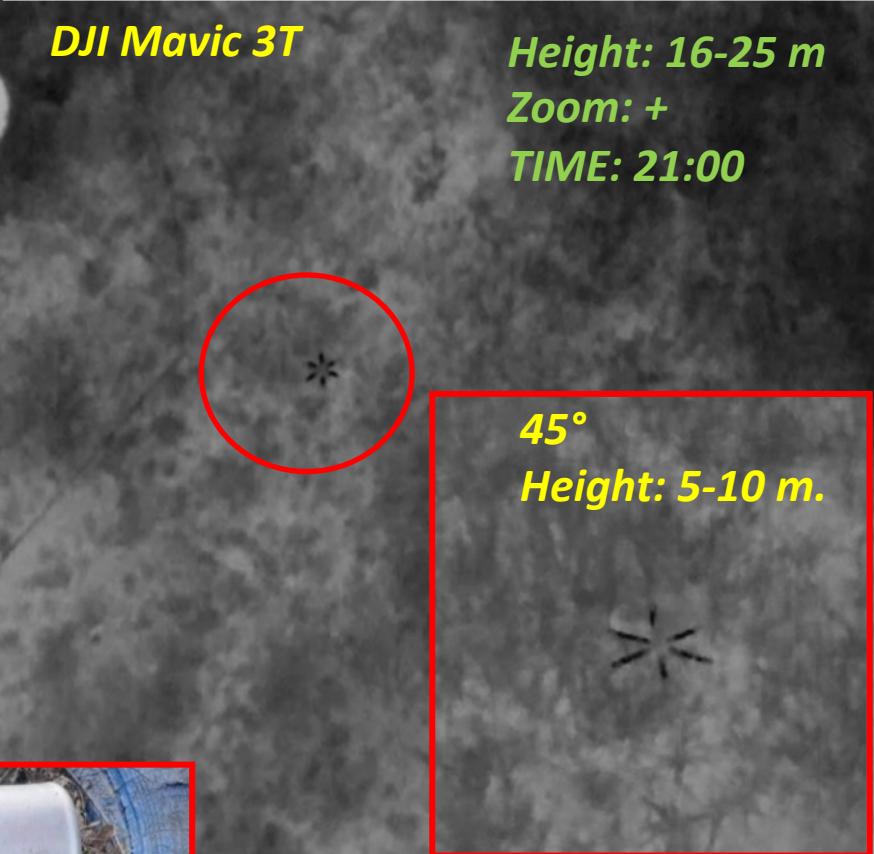


КБ ПОМ-3



DJI Mavic 3T

Height: 16-25 m
Zoom: +
TIME: 21:00



><

45°

Height: 5-10 m.

- *Mine site: moderate vegetation
- *Air temperature: +18-+20
- *without camouflage, on the ground
- *Observation angle: 90°

DJI Mavic 3T



*Height: 5 m
Zoom: +
TIME: 21:00*

DJI Mavic 3T



*Height: 5 m
Zoom: +
TIME: 21:00*

ПОМЗ-2



*Height: 5 m
Zoom: +
TIME: 21:00*



*Can be mistaken
for any WG with
a metal case*

*Height: 5 m
Zoom:-
TIME: 21:00*



**Mining area: vegetation is temperate
*Air temperature: +18-+20
without camouflage, on the ground

- A MON-50 anti-personnel mine was also installed in the area, which could not be detected and recognized in the video.



Detection of camouflaged mines

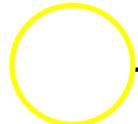
- Please note that on these slides mines of various types and purposes were installed without camouflage!
- Mines that will be laid with proper camouflage cannot be detected or recognized using a thermal imaging format!

Conditions

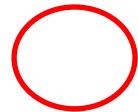
- Video/photography took place at sunset 21:00 (exact sunset time 21:17).
- Terrain on the site: moderate vegetation.
- Height/Angle: From different heights and angles, the optimal height was determined prior to the visual detection of engineering munitions.
- Plot installation time: 11:00 a.m. on the same day.

Notes

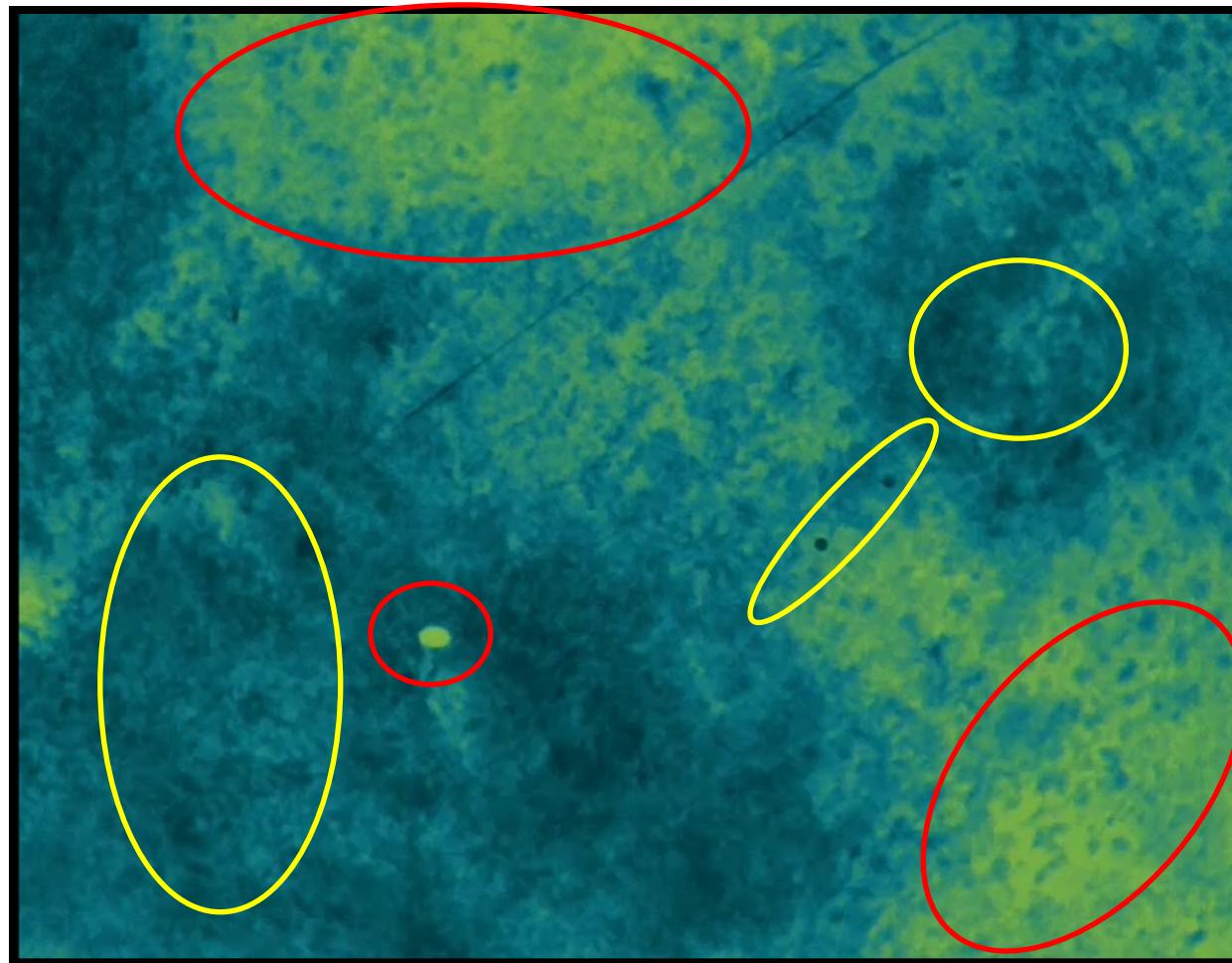
- I would like to note that for ammunition with a non-metal casing, at the specified time (21:00), the surface temperature of the mine body was cooled (to the touch) in contrast to metal. It is possible to detect them by signs of cooled objects (Fig. 1), and not the natural shape of the object.



- Unheated objects (areas).



- Heated objects.



Mal. 1

Notes

- This method of engineering reconnaissance is well suited for detecting anti-tank mines of the TM series (both in thermal imaging format and in conventional format).
- Temporary minefields, using cluster munitions (except for mines with a non-metallic casing, for example: mines of the PFM family), since these mines are not camouflaged, and have unnatural shapes of their design.

Notes

- For better recognition, it is advisable to use wide-diagonal devices and means, divide the terrain into sections/squares, view with magnification, pay attention and take into account the above features of unmasking features.

Thank you for your attention!

It is possible to include this method of engineering reconnaissance as one of the elements of training unmanned aerial vehicle operators.

It is useful to familiarize yourself with the photo/video report for UAV operators, for an existing acquaintance with the unmasking signs and features.