



**ЦЕНТР СПЕЦИАЛЬНЫХ
ИНЖЕНЕРНЫХ СООРУЖЕНИЙ**



ОТ ПРОЕКТА ДО ОБЪЕКТА

Пассивная защита объектов от воздействий атак БПЛА

С.А. Траутман, ведущий инженер конструктор

www.cesis.ru
www.cesis-proekt.ru



More than 20,000 feet

More than 15,000 feet

More than 10,000 feet

Up to 10,000 feet



Heron1 IAI
Operational Altitude: 30,000 feet
Wingspan: 16.6m
Max Payload Weight: 250Kg
Endurance: 45h



Dominator UAV Aeronautics
Operational Altitude: 30,000 feet
Wingspan: 13.5m
Endurance: 28h



Heron TP IAI
Operational Altitude: 45,000 feet
Wingspan: 26m
Max Payload Weight: 1000+Kg
Endurance: 36h



Hermes 900 Elbit
Operational Altitude: 33,000 feet
Wingspan: 15m
Max Payload Weight: 300Kg
Endurance: 40h



Aerostar UAV Aeronautics
Operational Altitude: 18,000 feet
Wingspan: 7.5m
Max Payload Weight: 50Kg
Endurance: 12h



Hunter IAI
Operational Altitude: 20,000 feet
Wingspan: 10.5m
Max Payload Weight: 100Kg
Endurance: 21h



Ranger IAI
Operational Altitude: 18,000 feet
Wingspan: 5.71m
Max Payload Weight: 45Kg
Endurance: 6h



Searcher III IAI
Operational Altitude: 23,000 feet
Wingspan: 8.55m
Max Payload Weight: 120Kg
Endurance: 18h



Hermes 450 Elbit
Operational Altitude: 18,000 feet
Wingspan: 10.5m
Max Payload Weight: 150Kg
Endurance: 20h



Blue Horizon Uvision
Operational Altitude: 15,000 feet
Wingspan: 6.5m
Max Payload Weight: 37Kg
Endurance: 8h



MiniFalcon2 Innocon
Operational Altitude: 18,000 feet
MTOW: 150kg
Wingspan: 5.5 meter
Endurance: <15 hours
Max. Payload weight: <35kg



Searcher II IAI
Operational Altitude: 20,000 feet
Wingspan: 8.55m
Max Payload Weight: 100Kg
Endurance: 15h



Orbiter3 Aeronautics
Operational Altitude: 18,000 feet
Wingspan: 4.2m
Max Payload Weight: 4Kg
Endurance: 7h



MiniFalcon1 Innocon
Operational Altitude: 18,000 feet
MTOW: 90kg
Wingspan: 5 meter
Endurance: <15 hours
Max. Payload weight: <14kg



Orbiter2 Aeronautics
Operational Altitude: 500-18,000 feet
Wingspan: 3m
Max Payload Weight: 1.5Kg
Endurance: 4h



Picador VTOL UAV Aeronautics
Operational Altitude: 12,000 feet
Max Payload Weight: 180Kg
Endurance: 8h



I-view MK 50 IAI
Operational Altitude: 15,000 feet
Wingspan: 5.3m
Max Payload Weight: 10Kg
Endurance: 6h



Skylark 2 Elbit
Operational Altitude: 5,000-15,000 feet
Wingspan: 6.5m
Max Payload Weight: 9Kg
Endurance: 4h



NRUAV IAI
Operational Altitude: 15,000 feet
Max Payload Weight: 220Kg
Endurance: 6h



AirMule Urban Aeronautics
Operational Altitude: 12,000 feet
Max Payload Weight: 560Kg
Endurance: 6h



Sparrow Uvision
Operational Altitude: 10,000 feet
Wingspan: 2.4m
Max Payload Weight: 12Kg
Endurance: 7h



Boomerang Bluebird
Operational Altitude: 500-15,000 feet
Wingspan: 275cm
Max Payload Weight: 2Kg
Endurance: 15h



MicroFalcon Innocon
Operational Altitude: 15,000 feet
MTOW: 6-10kg
Wingspan: 1.6-2meter
Endurance: 2.5-4 hours
Max. Payload weight: <2kg



Pioneer IAI
Operational Altitude: 4,600 feet
Wingspan: 5.2m
Max Payload Weight: 35Kg
Endurance: 5h



MicroB Bluebird
Operational Altitude: 500-15,000 feet
Wingspan: 99cm
Max Payload Weight: 200g
Endurance: 1h



BIRD EYE 650 IAI
Operational Altitude: 3,000 feet
Wingspan: 3m
Max Payload Weight: 1.2Kg
Endurance: 3h



Orbiter Aeronautics
Operational Altitude: 500-18,000 feet
Wingspan: 2.2m
Max Payload Weight: 1.5Kg
Endurance: 3h



Hermes90 Elbit
Operational Altitude: 5,000 feet
Wingspan: 5m
Max Payload Weight: 55Kg
Endurance: 15h



Panther IAI
Operational Altitude: 5,000 feet
Wingspan: 8m
Max Payload Weight: 10Kg
Endurance: 6h



Mini Panther IAI
Operational Altitude: 2,000 feet
Wingspan: 2.5-3.5m
Max Payload Weight: 2Kg
Endurance: 1.5h



Ghost IAI
Max Altitude: Dozens of meters
Dimensions: 145 cm
Max Payload: ~ 4 Kg
Hovering Time: Up to 30 min



ETOP IAI
Electrical Tethered
Observation Platform
Max Altitude: 100 m
Dimensions [cm]: 160L x 160W x 20H
Max Payload: 20 Kg
*Hovering Time: Unlimited
With a ground energy source*



SpyLite Bluebird
Operational Altitude: 500-30,000 feet
Wingspan: 240cm
Max Payload Weight: 1.3Kg
Endurance: 4h



Marabu Uvision
Operational Altitude: 10,000 feet
Wingspan: 2.8m
Max Payload Weight: 2Kg
Endurance: 3h



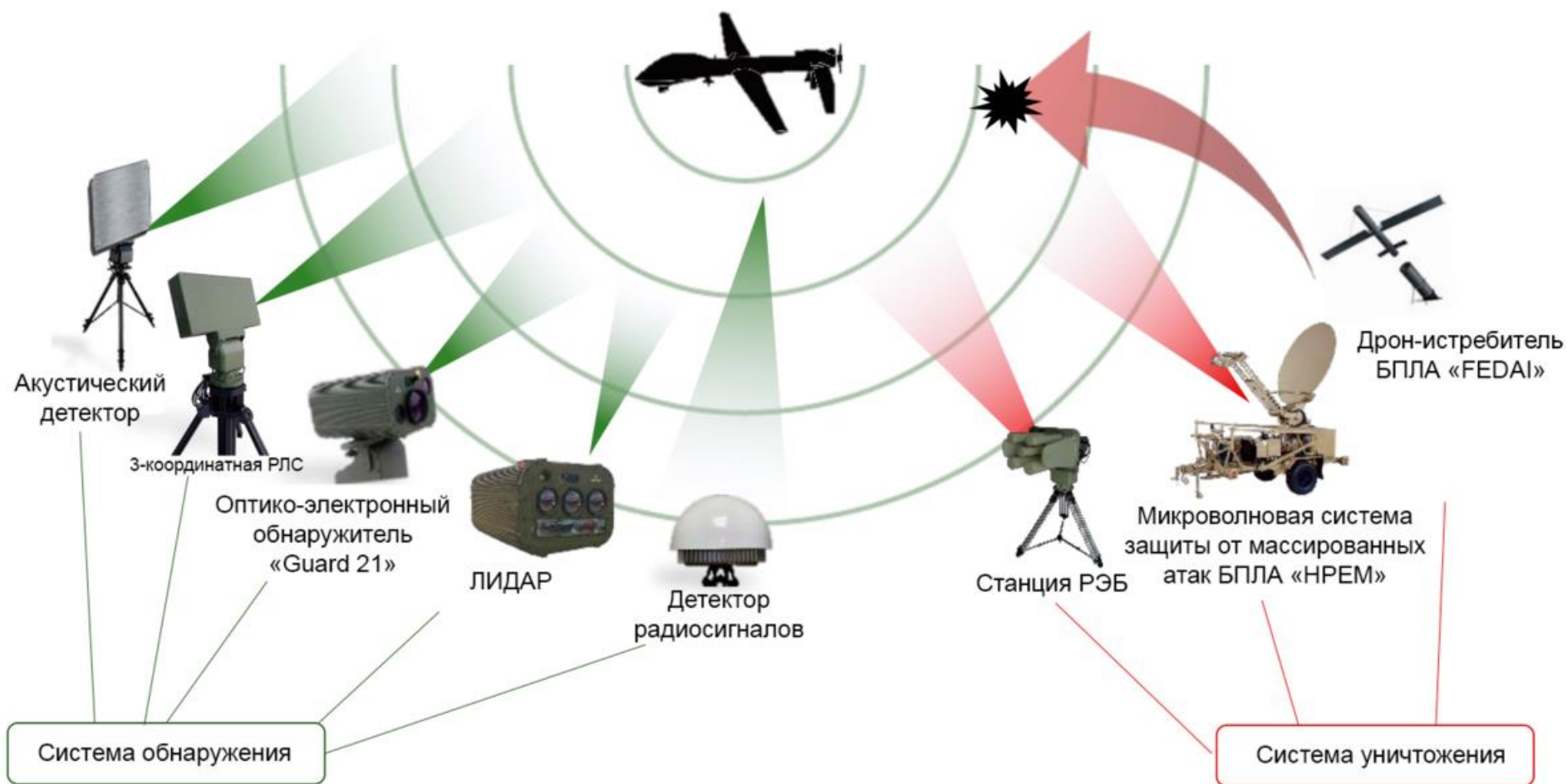
BIRD EYE 400 IAI
Operational Altitude: 1,000 feet
Wingspan: 2.2m
Max Payload Weight: 1.2Kg
Endurance: 1h



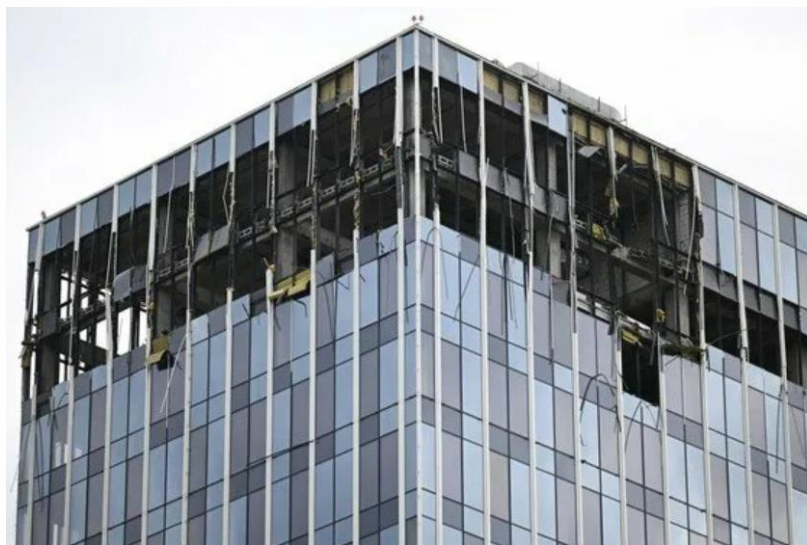
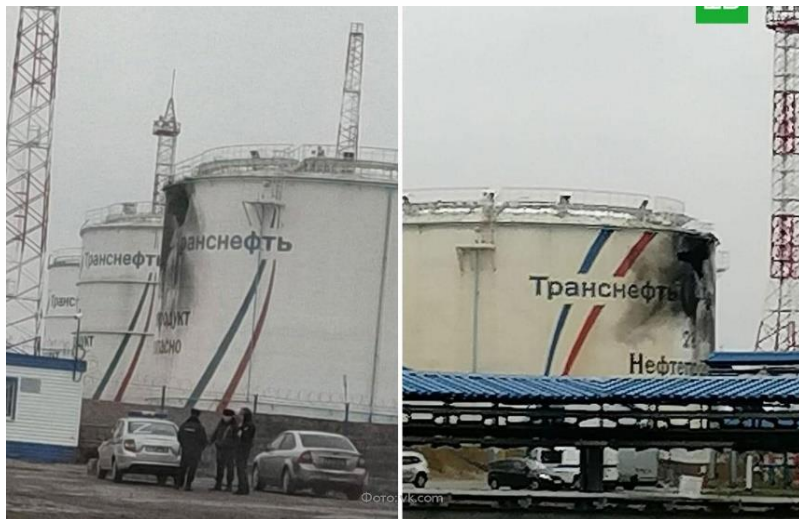
Harop IAI
Wingspan: 3m



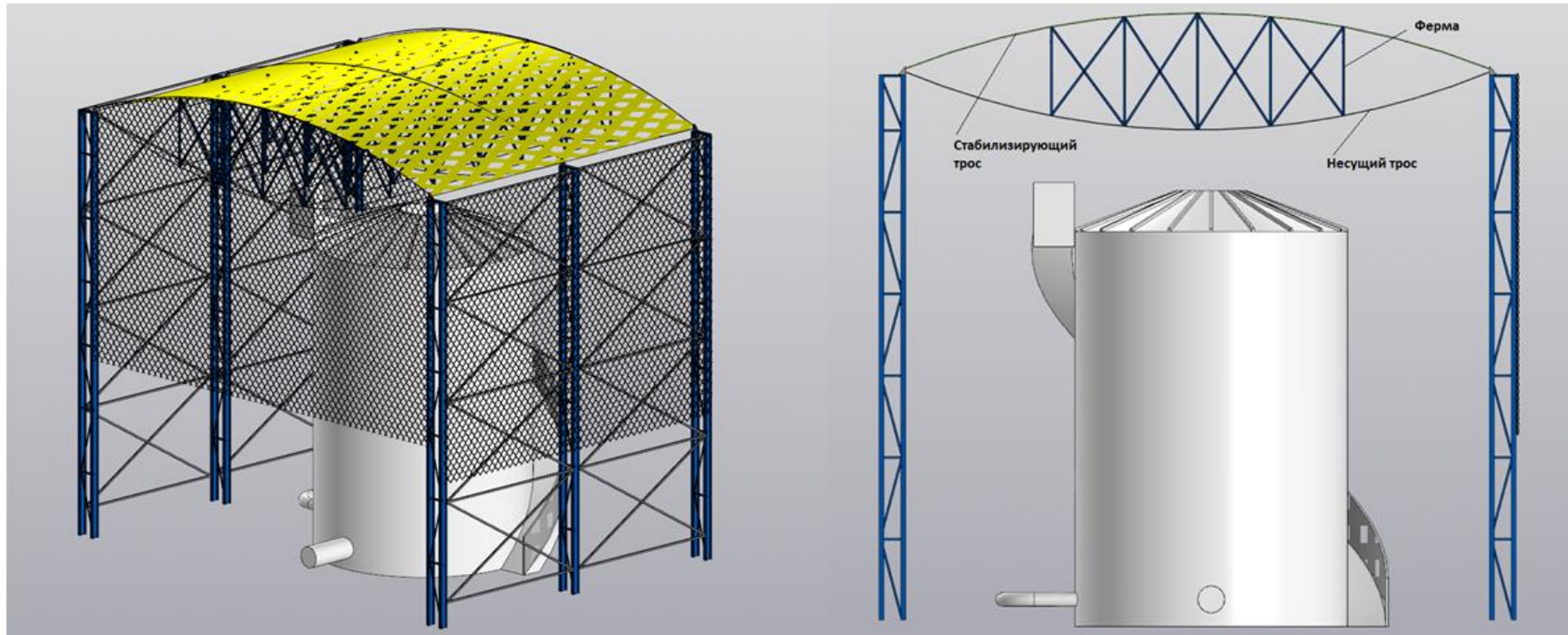
Harpy IAI
Wingspan: 2.1m



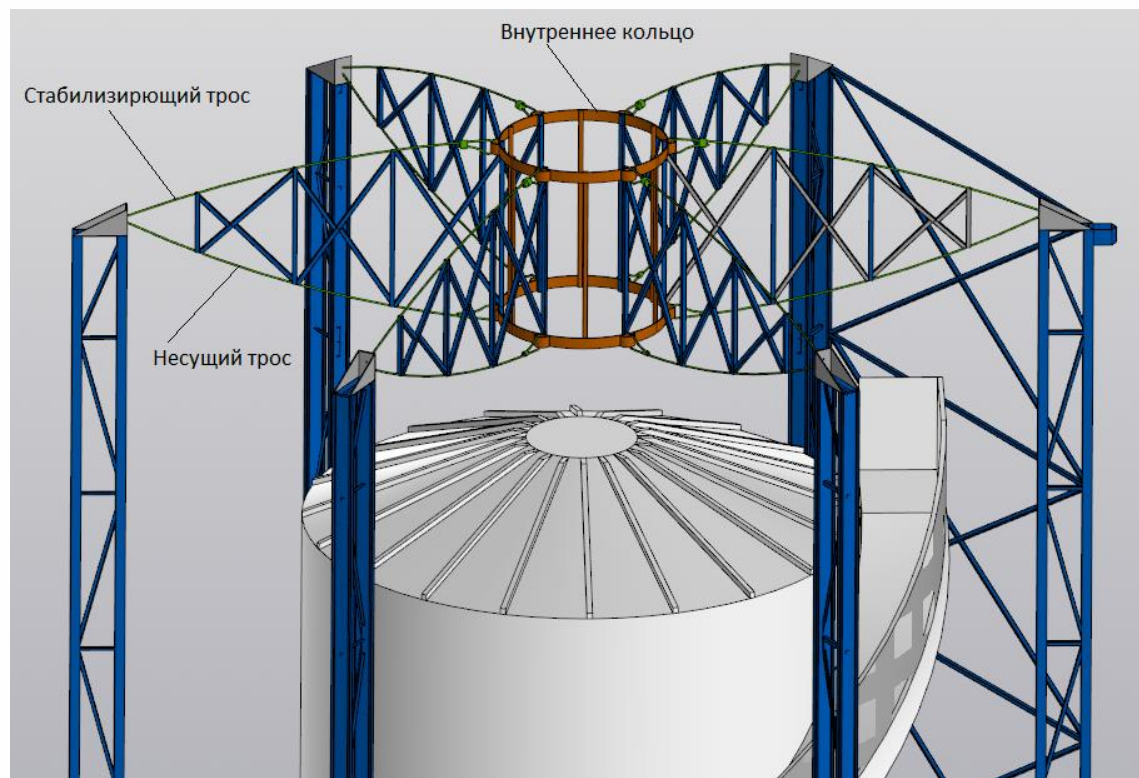
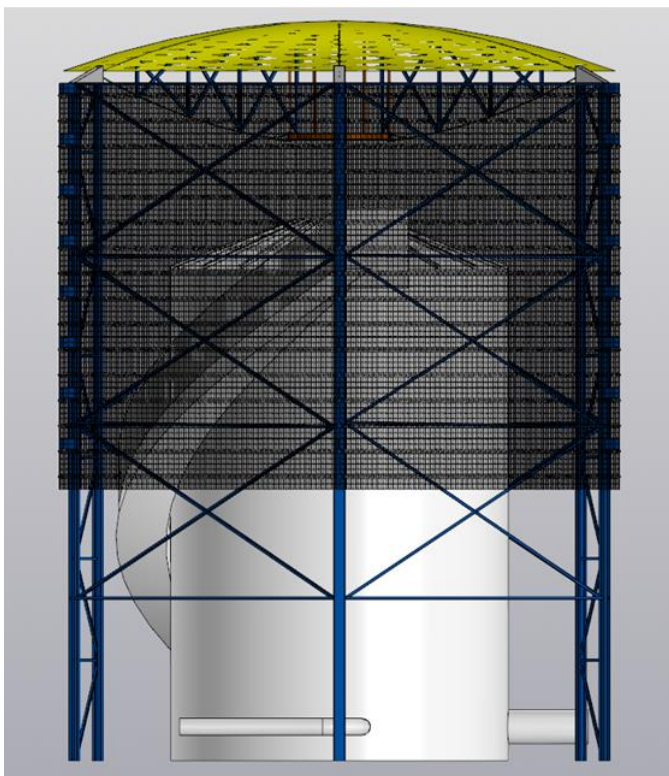
Необходимость физической защиты от БПЛА



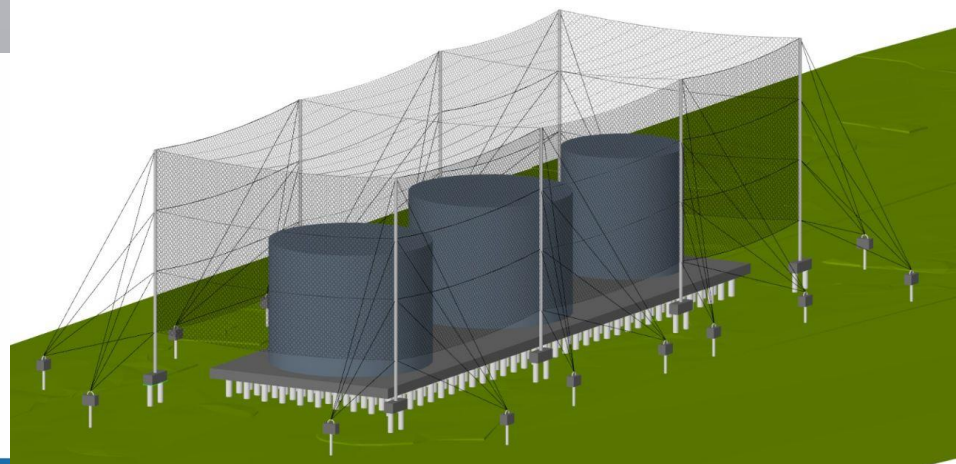
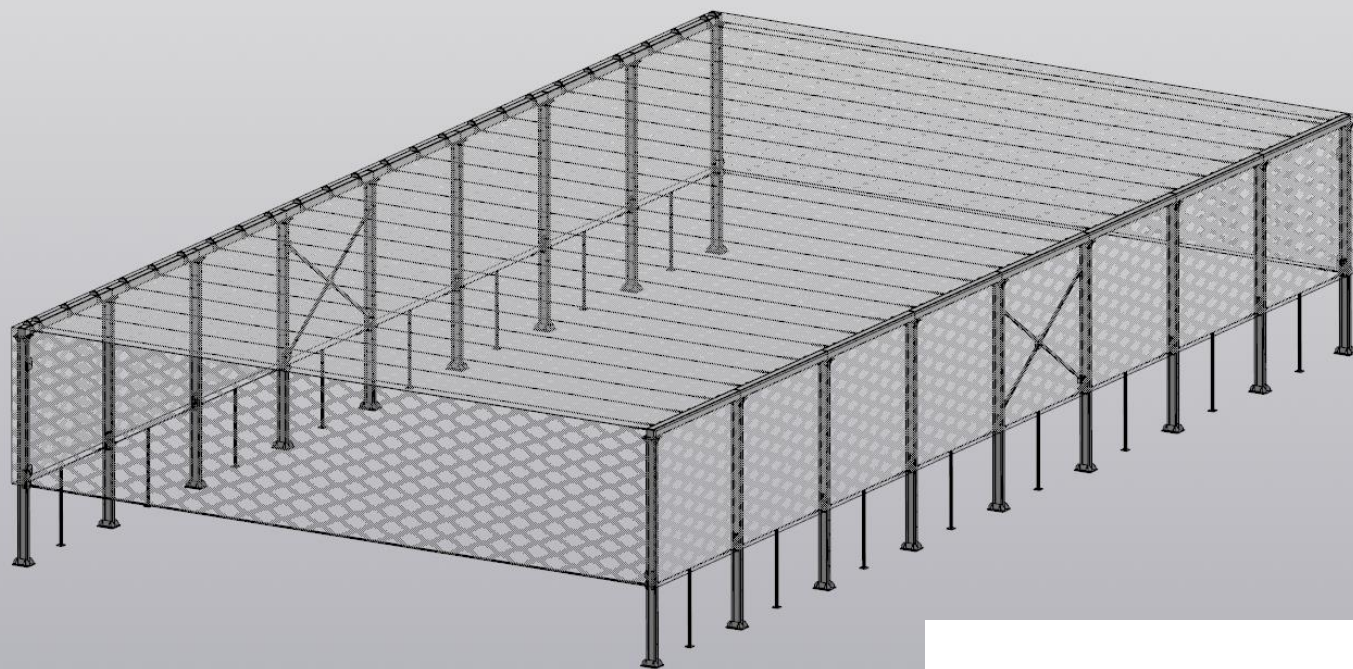
Защитные купола



Вариант купола с установкой колонн вокруг объекта



Вариант защитного ограждения здания

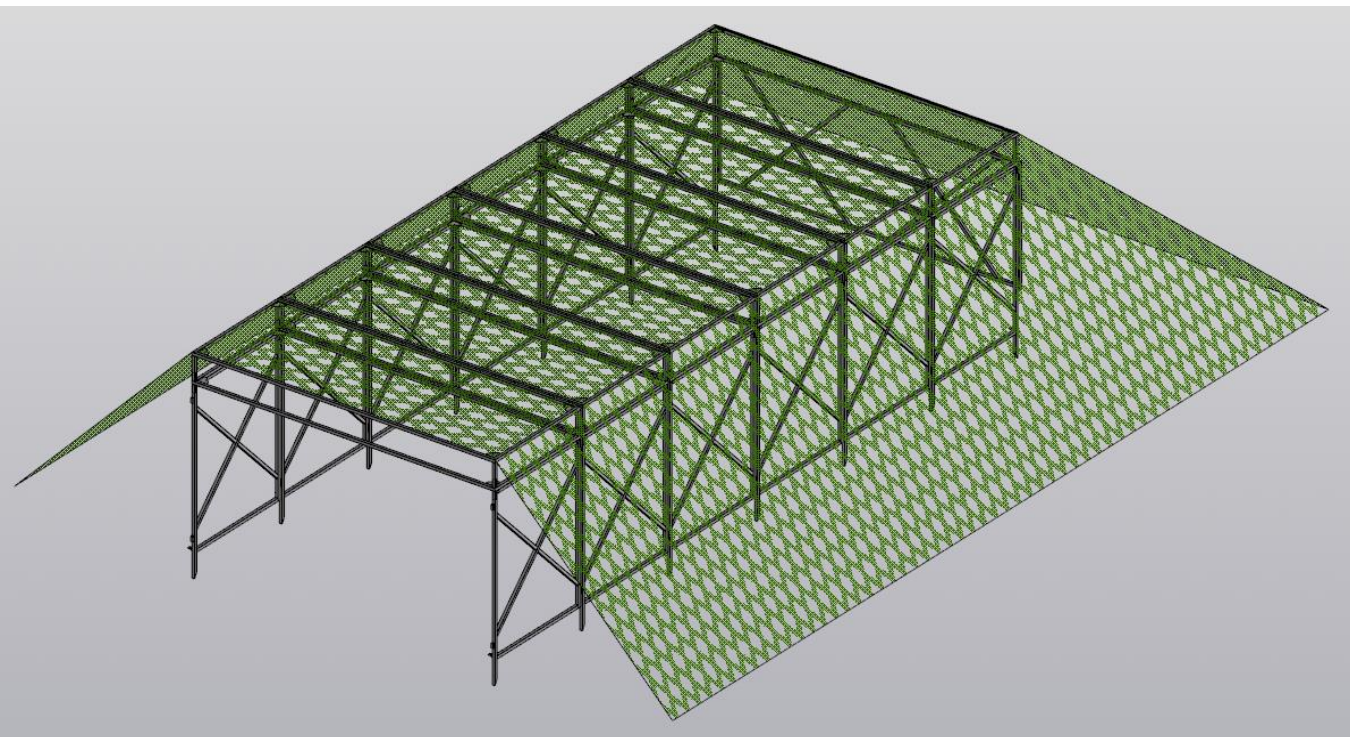


Решетка противоосколочная

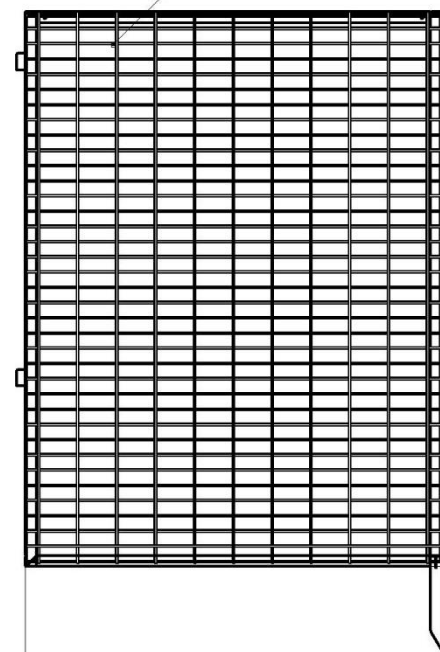
- Изделие обладает высокой устойчивостью к механическим разрушениям.
- Препятствует проникновению БПЛА через оконный проем и подрыву внутри охраняемого объекта



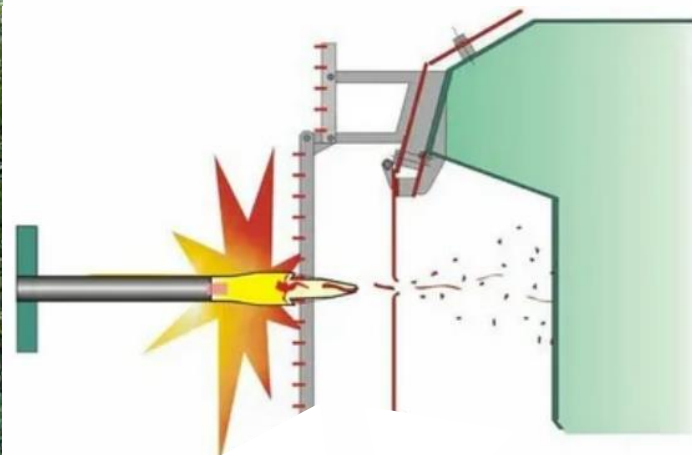
Модульная конструкция защиты военной техники в полевых условиях



панель сварная (ячейка 55x140)



Мобильная защита военной техники



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