



Auswärtiges Amt

German experience on clearance and destruction of cluster munitions remnants

Intersessional Meeting to the Convention on Cluster Munitions, 16 – 17 May 2022

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The Site and Contaminated Area

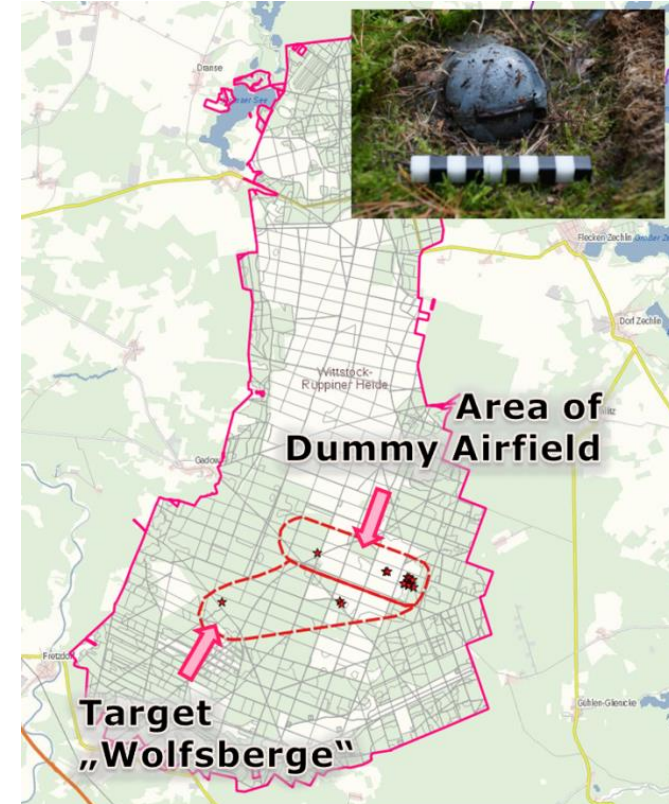
Wittstock Former Military Training Area

~ 80 km NW of Berlin, Germany

Area approximately 120 km², of which 11 km² are contaminated with Cluster Munition remnants

1945 – 1993: Ground-to-ground and air-to-ground training area of the former Soviet Forces

High Density of UXO (Tank and Artillery Munitions, Rockets, Bombs ...)



The Contaminated Area



Clearance Concept for Wittstock

Legal and technical framework

No federal agency for explosive ordnance disposal; planning / supervision of clearance at Wittstock exercised by Federal Institute for Real Estate

Clearance conducted by private sector

High contamination with UXO, fragments, live and inert ordnance, i.e. large calibre dropped munitions and shaped charge munitions

Limits for Mechanical clearance

Forest Fire Hazard

Unexploded WWII ammunition complicates efforts to fight German forest fires



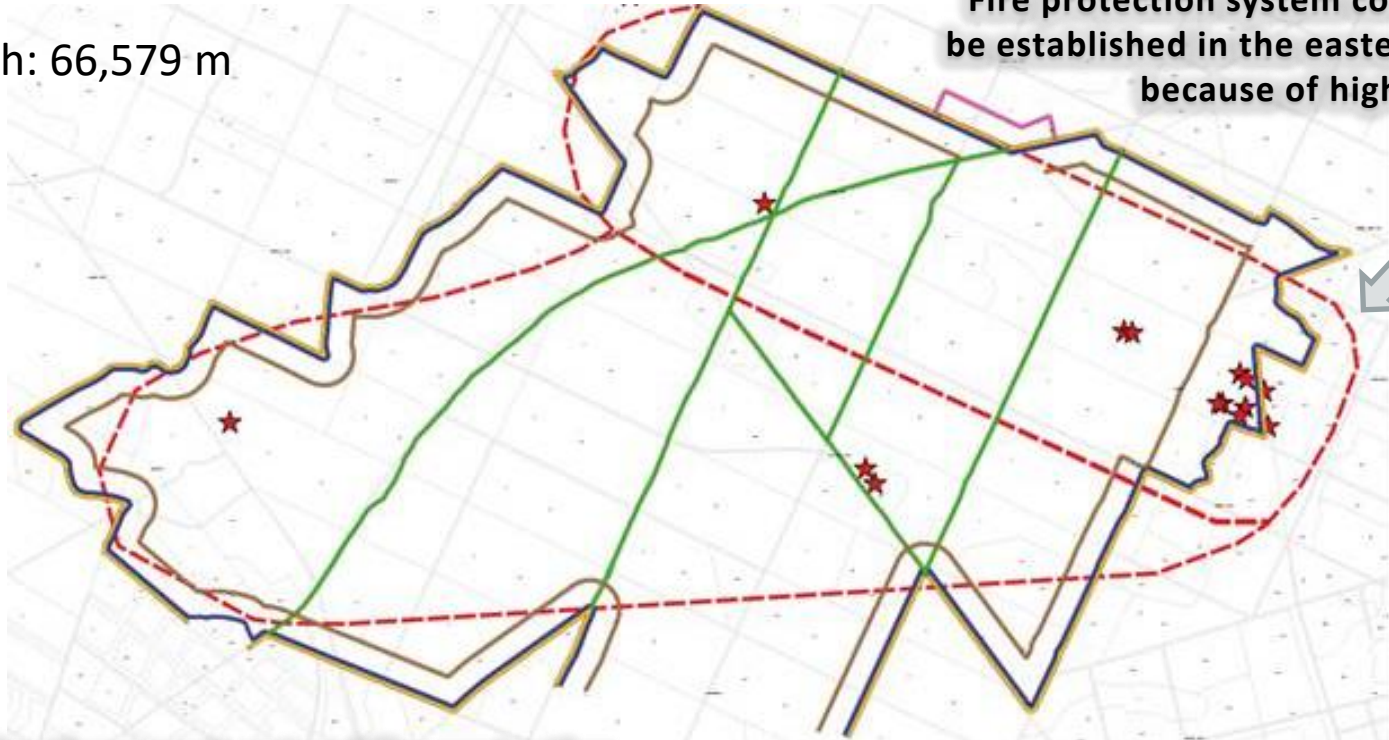
Germany: A forest is burning near the highway A9 between Potsdam and Fichtensalde, eastern Germany, Thursday, July 26, 2018. POLIZEI BRANDENBURG VIA AP

Concept for Cluster Munitions Clearance at Wittstock

- (1) Preparation of the site: desk study and creation of an access and evacuation road network as well as of a fire protection system
- (2) Controlled burning of vegetation (heath) within the prepared fire strips
- (3) Clearance
- (3) Detailed documentation of finds and clearance results
- (4) External quality control of clearance results

(1) Fire Protection System

Total Length: 66,579 m



Fire protection system could not be established in the eastern part because of high forest

Southern part: natural fire protection, no fire breaks required

Concept for Cluster Munitions Clearance

- (1) Clearance of access road network and fire strips
- (2) Controlled burning of vegetation (heath) within the prepared fire strips
- (3) Clearance
- (3) Detailed documentation of finds and clearance results
- (4) External quality control of clearance results

(2) Controlled Burning



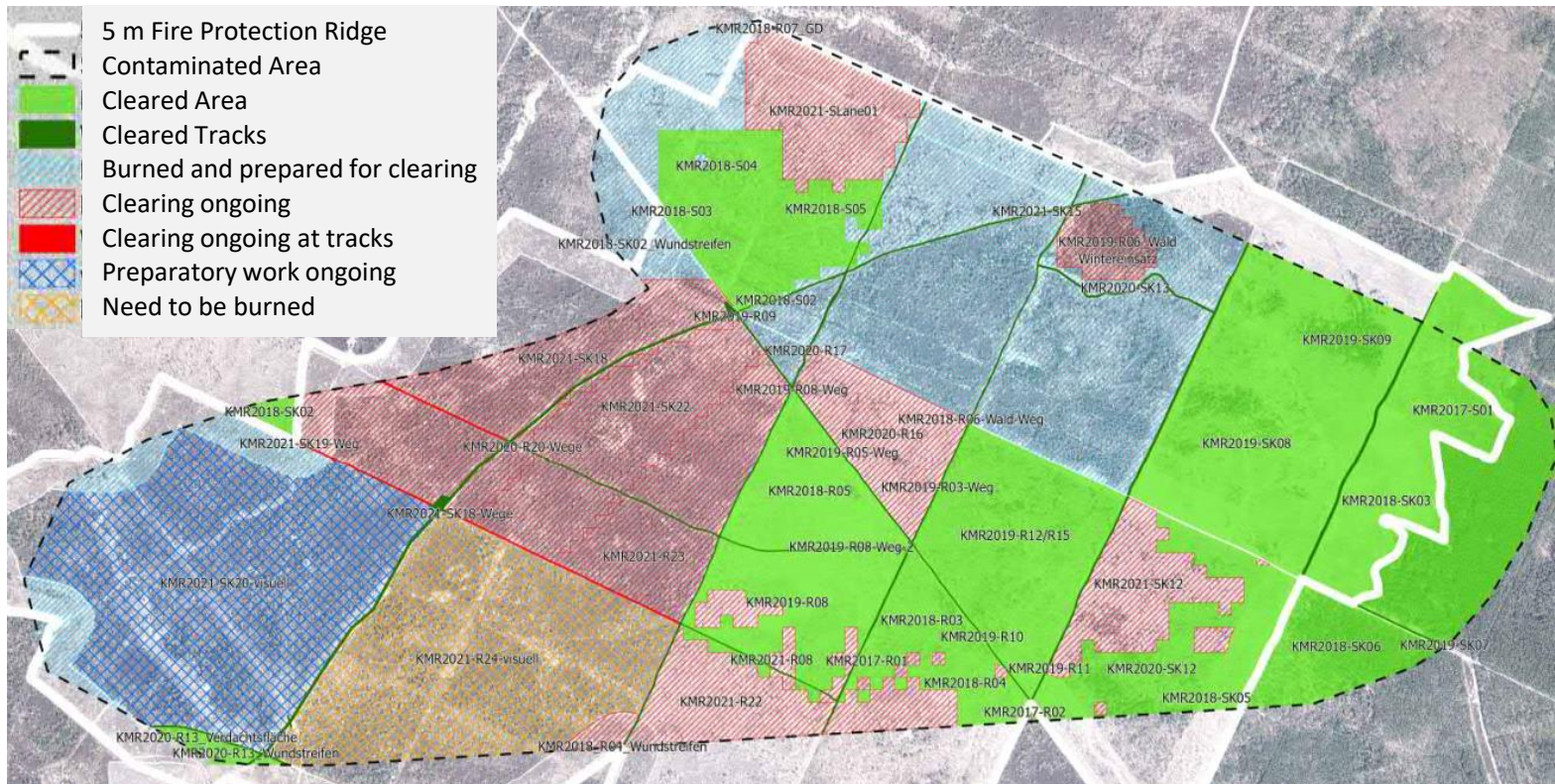
Favourable conditions only during limited periods of time per year



Concept for Cluster Munitions Clearance

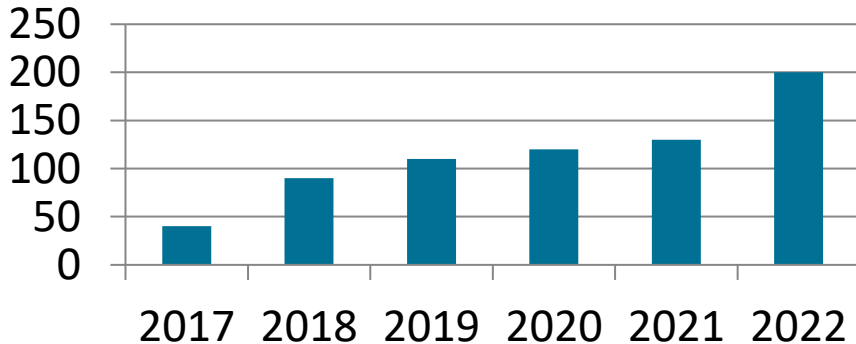
- (1) Clearance of access road network and fire strips
- (2) Controlled burning of vegetation (heath) within the prepared fire strips
- (3) Clearance
- (3) Detailed documentation of finds and clearance results
- (4) External quality control of clearance results

(3) Clearance - Status as of 25 March 2022



Personnel (annual average) and financial resources

- **2017: 40 Personnel**
- **2022: ~ 200 Personnel**
**(~ 13 % of the German
UXO Clearance Industry)**



- 2017: 1.628.000 €
- 2018: 9.503.739 €
- 2019: 11.523.802 €
- 2020: 12.939.800 €
- 2021: 21.386.571 €
- 2022: 27.000.000 € (estimated)
- 2023: 27.000.000 € (estimated)
- 2024: 27.000.000 € (estimated)
- 2025: 18.500.000 € (estimated)
- 2026: 250.000 € (estimated)
- **Total: approx. 157.000.000 €**

Field Works



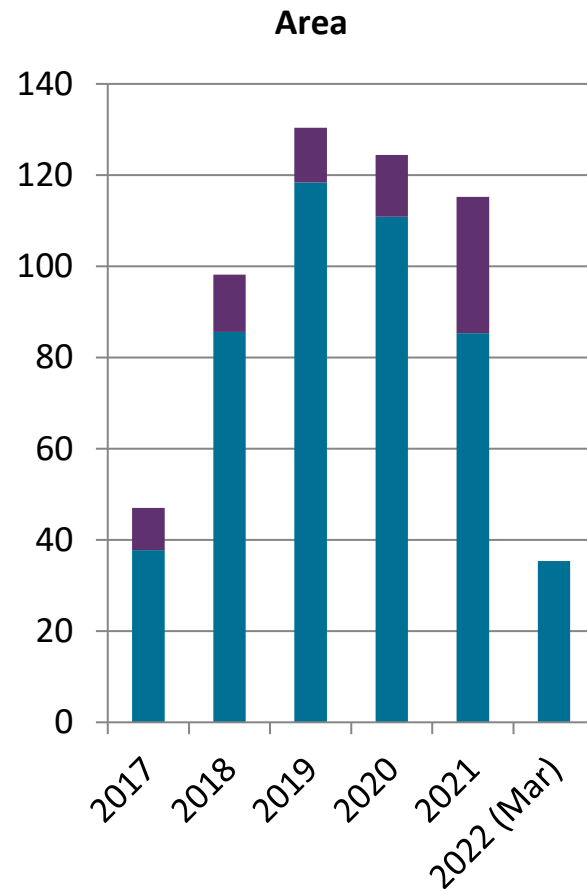
Status as of 25 March 2022

Total Area to be cleared: 11 km²

Total Area cleared as of 25 Mar 22:

Inside cluster munitions area: 4.73 km² (= 43 %)

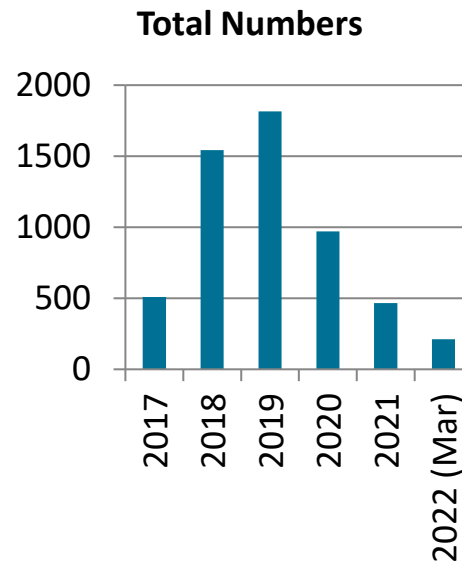
Outside cluster munitions area: 0.77 km²
(fire protection strips, trails etc.)



Numbers as of 25.03.2022

Cluster Munitions Finds

• Total:	5513		
• AO-1 Sch	200	• PTAB-2,5 M	601
• AO-1 M	2	• PTAB 2,5 TG	17
• AO-2,5	2	• PTAB-10-5	113
• AO-2,5RTM	79	• ZAB 1-E	1
• AO-10 Sch	12	• ZAB 2,5M	231
• ShOAB-0,5	3890	• ZAB 2,5S	83
• PTAB 1	273	• ZAB 2,5	2
• PTAB-1 M	7		



Numbers as of 25.03.2022

Finds

Date	Cluster Munition	Other Munition	Munition fragments with explosives (*)	Scrap without explosives (*)
	(pieces)	(pieces)	(tons)	(tons)
14.03.-25.03.2022	75	810	0	210
28.02.-11.03.2022	18	1114	1	0
14.02.-25.02.2022	28	2336	9	0

(*) Number for munition fragments and scrap indicate the amount of material shipped off Wittstock during a specific time period.

Large UXO and Debris / Scrap



Scrap recovered from a single parcel (50 x 50 m)



Thousands of Shell Casings



Piles of bombs



Outlook

Planning the years 2022 - 2025

To be cleared Jan 2022 – Aug 2025: 6.620.000 m²

Year	Planned Personnel (yearly)	Planned cleared area [m ²]
2022	200	1.500.000
2023	200	2.200.000
2024	200	2.200.000
2025	150	720.000

Factors influencing clearance speed - Risks

Reduced productivity of clearance due to

- Higher density of metal objects and UXO than expected
- Necessary works to maintain fire protection system
- Limited personnel resources for UXO clearance
- Weather conditions

Destruction of cluster munition



Thank you very much ...