

Mines with Sensitive Fuzes: Status of Practice and Illustrations

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Purpose and Goal

- Presentation will:
 - Illustrate status of practice
 - Show field examples
 - Inspire transparency and build practice
- Presentation will **not**:
 - Address treaty definitions or interpretations
 - Make compliance judgments
 - Focus on antihandling devices



How Do Others See It?

“While the Ottawa Convention allow signatories to retain large and deadly [antivehicle mines]... many technologically advanced countries have chosen to interpret their Ottawa commitments to allow the use of sensitive fuzes and/or anti-handling devices affixed to these mines – making them as or more dangerous than [antipersonnel mines].”

Richard G. Kidd
Director of the Office of Weapons Removal and Abatement
US Department of State

Prepared Remarks at the United Nations Association of the United States of America
(UNA-USA) Panel Discussion
New York, New York
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Common Characteristics and Concerns



- Some fuze types possess irreversible victim activated function: tripwire, breakwire, tilt rod
- Physical co-location of these fuzes with mines and other types of encased explosive charges within ammunition supply system
- Components optimized for multi-functionality and interoperability
 - i.e. common thread gauges
- Design occurs in the field

Examples of Practice

- **Germany** and the **UK** have stated that mines equipped with tilt rod, tripwire, and breakwire fuzes are inappropriate and cannot be designed in a way to prevent detonation by a person
- **Zambia's** national legislation prohibits mines equipped with tripwire and breakwire fuzes as well as pressure fuzes that operate at threshold of less than 150 Kg.
- **Slovakia** has adopted a "Best Practice Policy" that bans tripwire and tilt rod fuzes



Tripwires and Breakwires

- Not only applicable as a primary mine fuze but also secondary fuzes, multipurpose fuzes, and firing devices
 - Tripwires also common in booby traps
- Examples of Practice:
 - **Sweden** (FFV-16) forbids use of tripwires with mines
 - **Netherlands** (NR-29) and **UK** (L27) retired mines (MIACAH-1) with breakwire fuze
 - **France** (MIACAH-2) and **Belgium** (MIACAH-2) are looking to replace breakwire fuze
 - **Czech Republic** (PD-Mi-PK) stockpiles and a Czech company has offered for sale a mine with a tripwire



Tilt Rods



- Low lateral pressure (often <5 Kg.) on rod to initiate mine
- Camouflage often employed
- Some have a hole in tilt rod to tie multiple mines together, i.e., large tripwire
- Examples of practice:
 - **Canada, France, Hungary** (UKA-63), **Mali** (TM-57 with MVSh-57 fuze) and **UK** (L39A1B1 fuze) have removed from inventory
 - **Croatia** and **Slovenia** expressed willingness to discuss TMRP-6
 - **Czech Republic** (PT-Mi, PT-Mi-P, PT-Mi-U) and **Sweden** (M47, M-52, Mine Fuze 15) acknowledge possessing

Other Ordnance Items

- Pressure, pressure release, tension, tension release, and pull firing devices (igniters)
 - Designed to be easily adapted to a variety of munitions
 - Common components for antihandling devices and booby traps
- Examples of practice:
 - **Belgium** and **France** have removed from inventory unspecified pressure and tension release firing devices (igniters)
 - **Germany** (DM-39) and **Slovakia** (Ro-3) have removed from inventory anti-lift fuzes
 - **Croatia** and **Lithuania** have reported destroying unspecified types of fuzes



Possible Ways Forward

- Remove items from inventory: tripwire, breakwire, and tilt rod fuzes as well as pressure/tension release firing devices
- Voluntarily provide more details of the number and types of mine fuzes destroyed during national stockpile destruction programs
- Ensure that national legislation, military instructions, and doctrine prohibit the construction of improvised antipersonnel mines by the combination of available ordnance items

