Use of DRM for Maritime Broadcasting

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Plans & Policy

The use of DRM in the German Navy

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Data Broadcasting via Digital Shortwave (DRM)

- First study for the German Navy in 2005
- No progress for nearly 5 years
- First ship equipped in 2010
- Different tests and trials in the last years

Marine
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News to the ship

➢ **Audio**
- ⌃ Live or
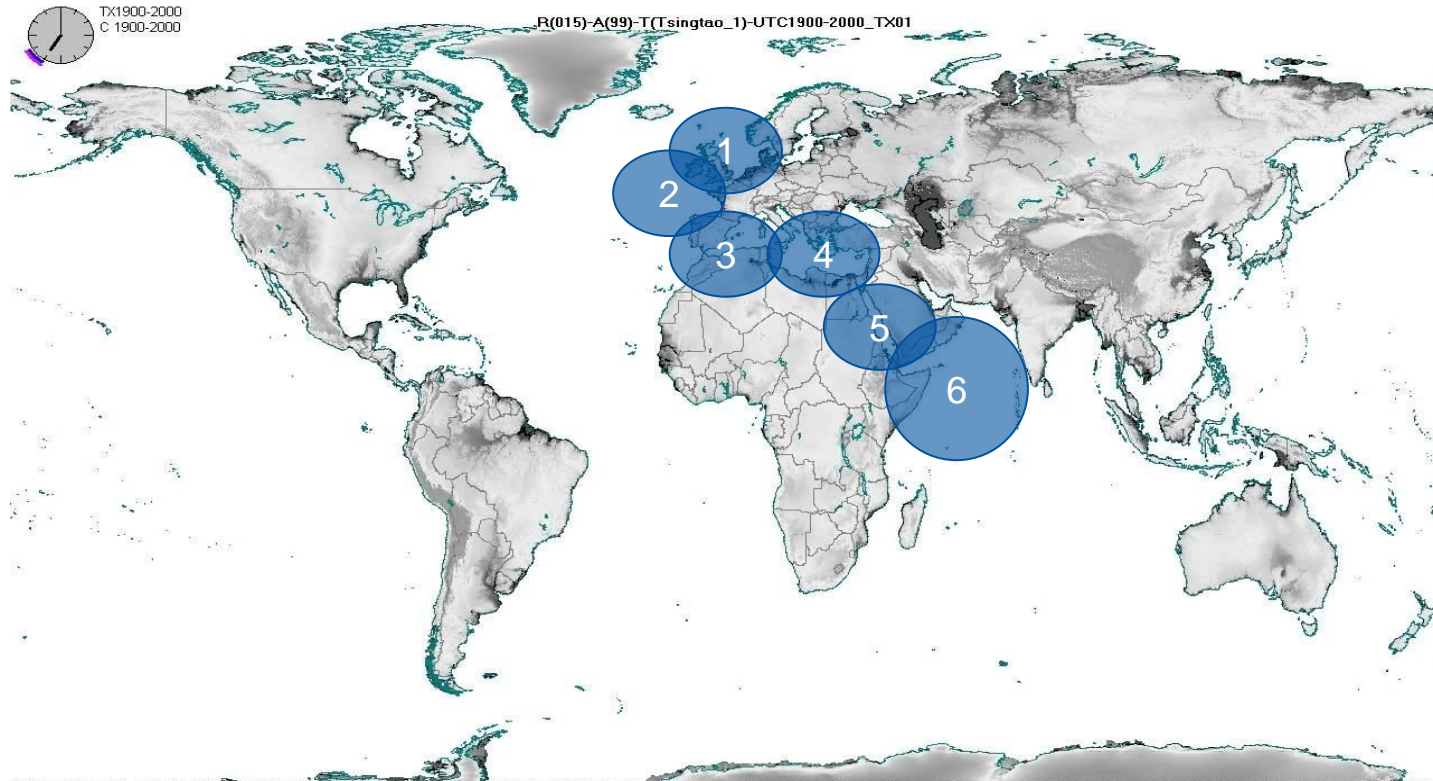- ⌃ On demand (e.g. mp3 file)

➢ **Data**
- ⌃ News Feeds (e.g. RSS-News)
- ⌃ PowerPoint → Slide Show
- ⌃ Short Videos
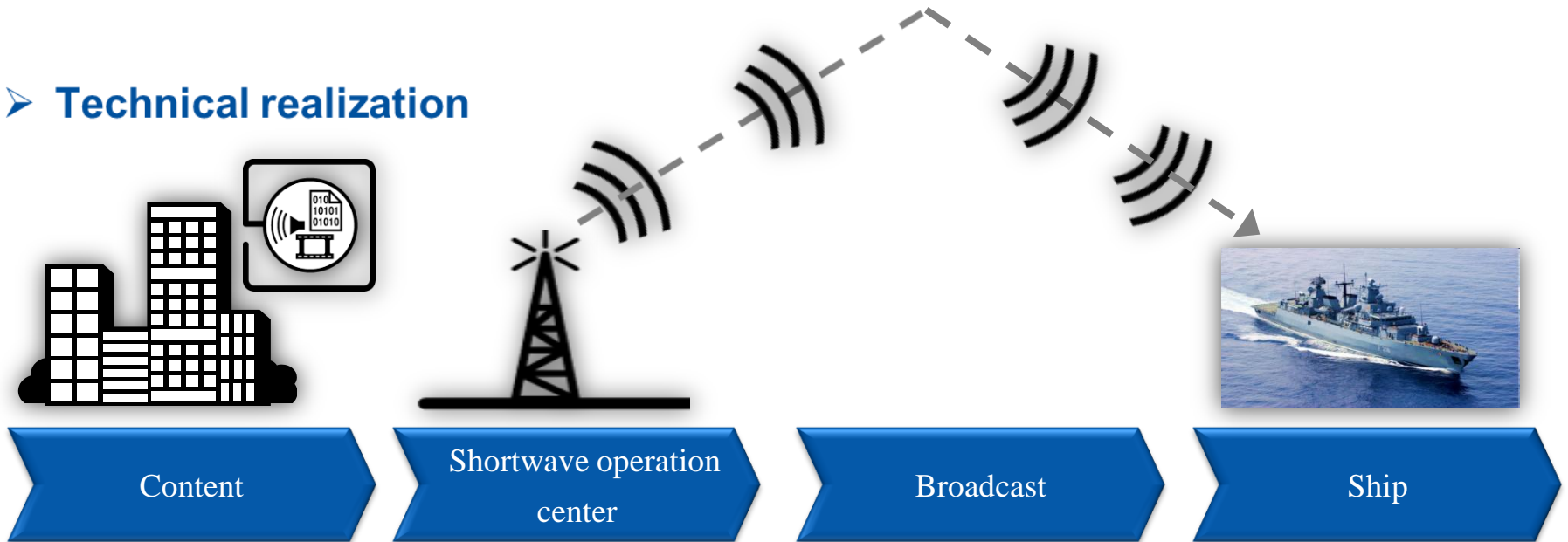- ⌃ Text Messages

EU-NAVFOR „ATALANTA"

➢ **The way of „Fregatte Schleswig-Holstein" from Wilhelmshaven to the Horn of Africa, in the context of ATALANTA Mission**

News to the ship

> **Technical realization**

| Content | Shortwave operation center | Broadcast | Ship |

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Encrypted IP-transmission for the Navy

> **Transmission via DRM:**
> - Radio Andernach
> - RSS Internet-Feeds of Deutschlandradio
> - News of n-tv
> - Tactical content via VPN

Using of the existing SW-antenna system on the ship

Decryption and reception via the DRM receiver DT 700

Server

IP via IP-Network

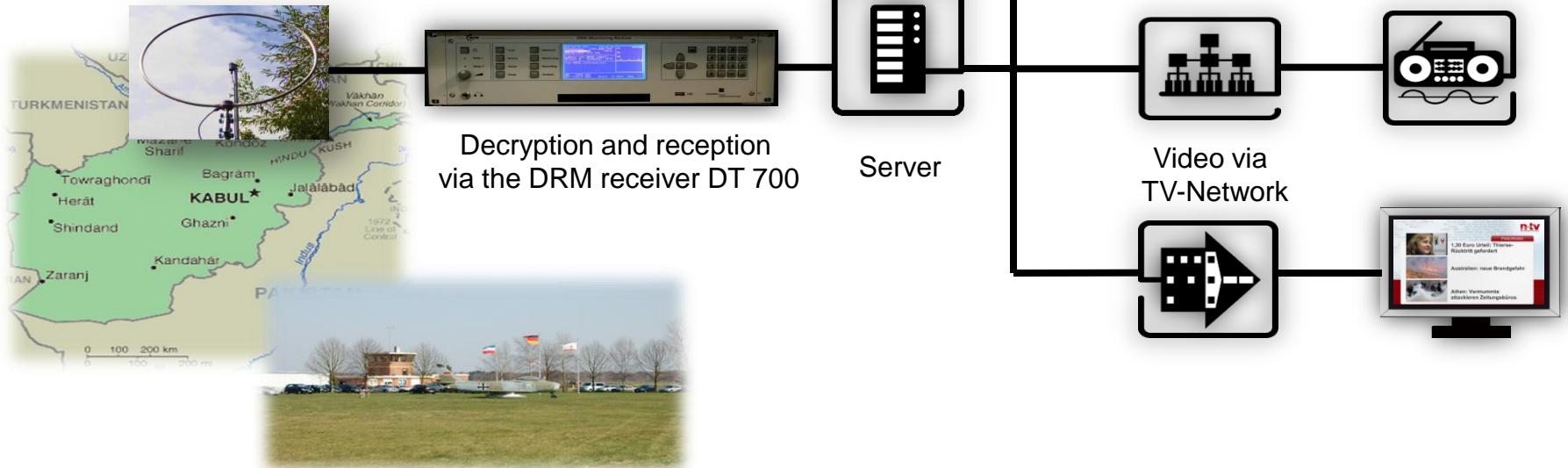Audio via ship loudspeakers

Video via TV-Network

German Armed Forces

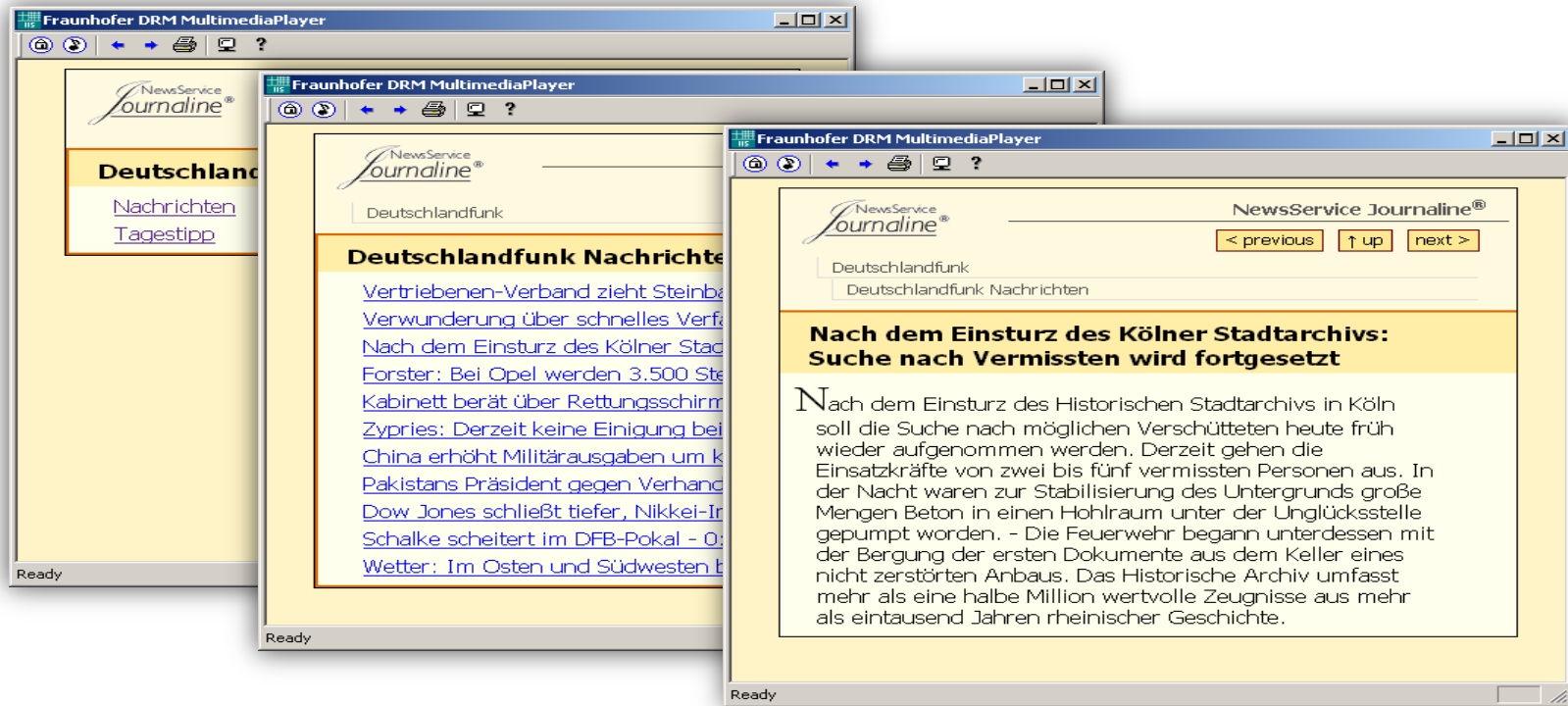Encrypted IP-transmission for Army and Air Force distant bases

> ➢ Transmission via DRM:

- ➤ Radio Andernach
- ➤ RSS Internet-Feeds of Deutschlandradio
- ➤ News of n-tv
- ➤ Tactical content via VPN

UKW-Transmitter

Decryption and reception
via the DRM receiver DT 700

Server

Video via
TV-Network

News-Feeds via Journaline System

News on Displays / Flatscreens

Benefits of data transmission via DRM

➢ **Good quality caused by digital HF-technology**
- Transmission of
  - Audio and / or
  - IP-Files

➢ **Utilization of various media channels**
- Audio – troop entertainment (Radio Andernach) on ship and on base
- „Power-Point-sheets" for information of the soldiers (Army internal / external)
- Data transmission with different news (e.g. world news, political news, sports etc. or Army internal news (from online editorial team of Radio Andernach, Y-editorial etc.)

➢ **Shift from cost-intensive "point to point" data distribution via Inmarsat to distribution via DRM-Broadcasting**
- One transmission for multiple ships

Marine
Wir. Dienen. Deutschland.

Questions?