

§ SatDSiG

A satellite is shown in space, oriented diagonally. It has a large, rectangular solar panel array on its left side and a main body with a gold-colored thermal blanket. A long, thin antenna or probe extends from the front of the satellite towards the bottom left. The background is the Earth's horizon, showing a blue atmosphere and white clouds, set against a black sky filled with stars.

***a German Industry Perspective
on lex TerraSAR-X***

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SatDSiG?

**Gesetz zum Schutz vor Gefährdung der Sicherheit
der Bundesrepublik Deutschland
durch das Verbreiten
von hochwertigen Erdfernerkundungsdaten

(Satellitendatensicherheitsgesetz - SatDSiG)**

“Act to Safeguard the Security Interests of the Federal Republic of Germany from Endangerment by the Distribution of High-Grade Earth Remote Sensing Data”

Content

- Motivation
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- Principles of an transaction based approach
- Sensitivity check matrix: let's take a closer look!
- A map of concern: the sensitive country list!
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- WorldSAR: an industry vision of international cooperation in space
- Level Playing Field: “one hand don't clap”!

Motivation

Pre-SatDSiG Situation:

2005: identified gap between trade laws, personal data protection laws and aerial surveying regulations

2007: industry consultations incl. Google, DLR, Infoterra by the German Bundestag (BT Committee)

Government driver:

“The purpose of the Act is, on the one hand, to **safeguard the security and foreign policy interests of the Federal Republic of Germany** in connection with the distribution and commercial marketing of satellite-acquired earth remote sensing data especially on international markets.”

Industry driver:

“On the other hand, the Act will **create legal certainty for affected companies** and make the terms of operating in the new business areas calculable for the developing companies involved in satellite data marketing.”

Applicability & Pre-Requisites

Applicability:

German entities, operating and distributing data of a high-grade satellite **and** foreign entities tasking their assets from Germany federal territory (effective control clause of operations)

High-Grade: spatial resolution of 2.5m or better

(note: stricter thresholds for specific sensors, i.e. radar: 3m; thermal infrared: 5m; super-/ hyperspectral >49 bands: 10m)

Pre-requisites:

As prerequisite the data distributor needs to apply for a license and demonstrate that there are appropriate organizational and technical means in place to ensure the secure data handling (**licensing of data distribution**).

The security concept is subject to an **approval process** by the Federal Information Security Office (BSI).

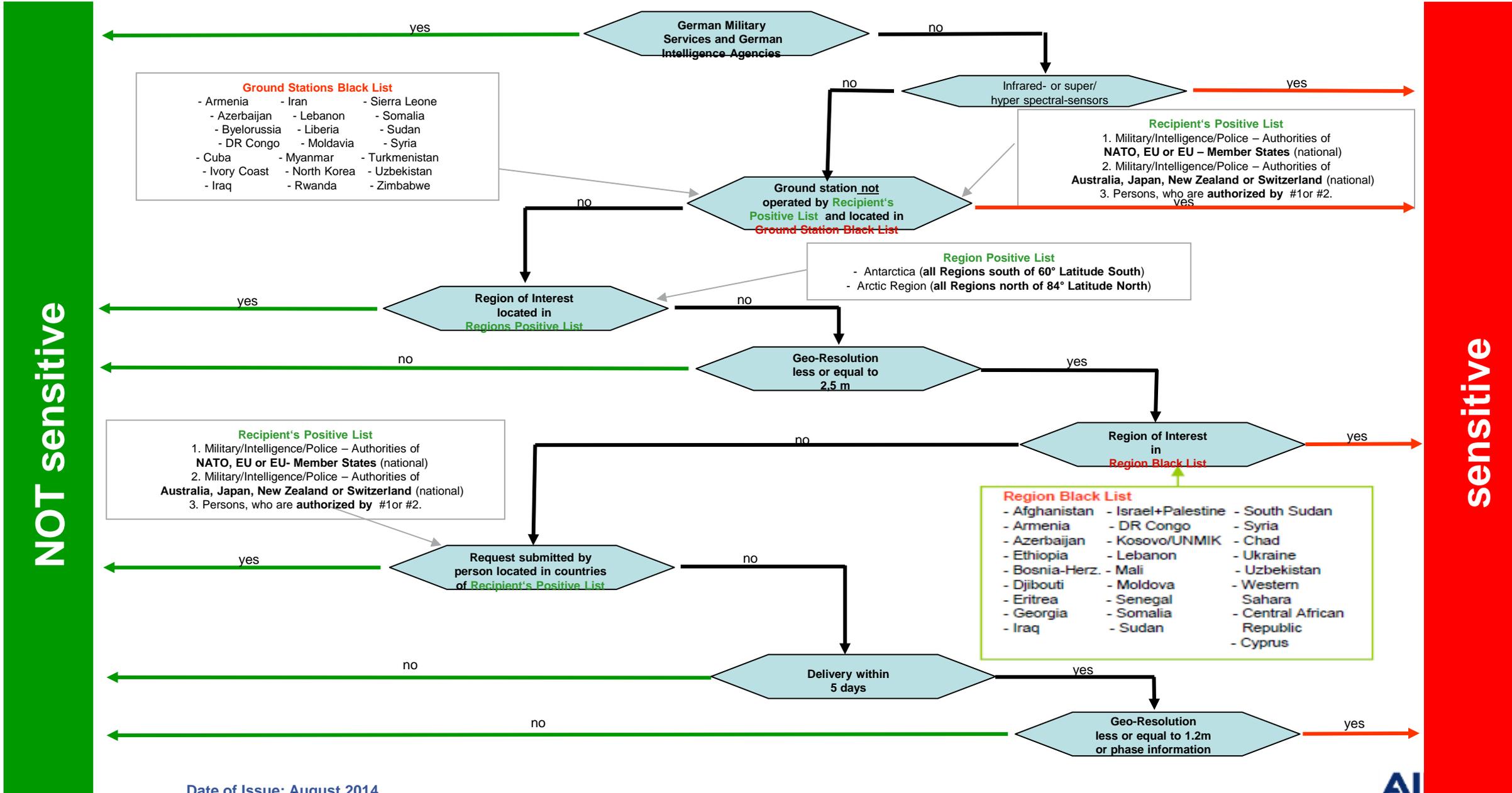
Furthermore, the data distributor is subject to **regular audits** by the German Export Control Authority (BAFA).

The SatDSiG also has a licensing element for satellite operator. In case of our TerraSAR-X satellite this license has been granted to DLR institutes involved in the program (**licensing of satellite operations**)

Principles of an transaction based approach

The control procedure is designed as a **two-layered approach**:

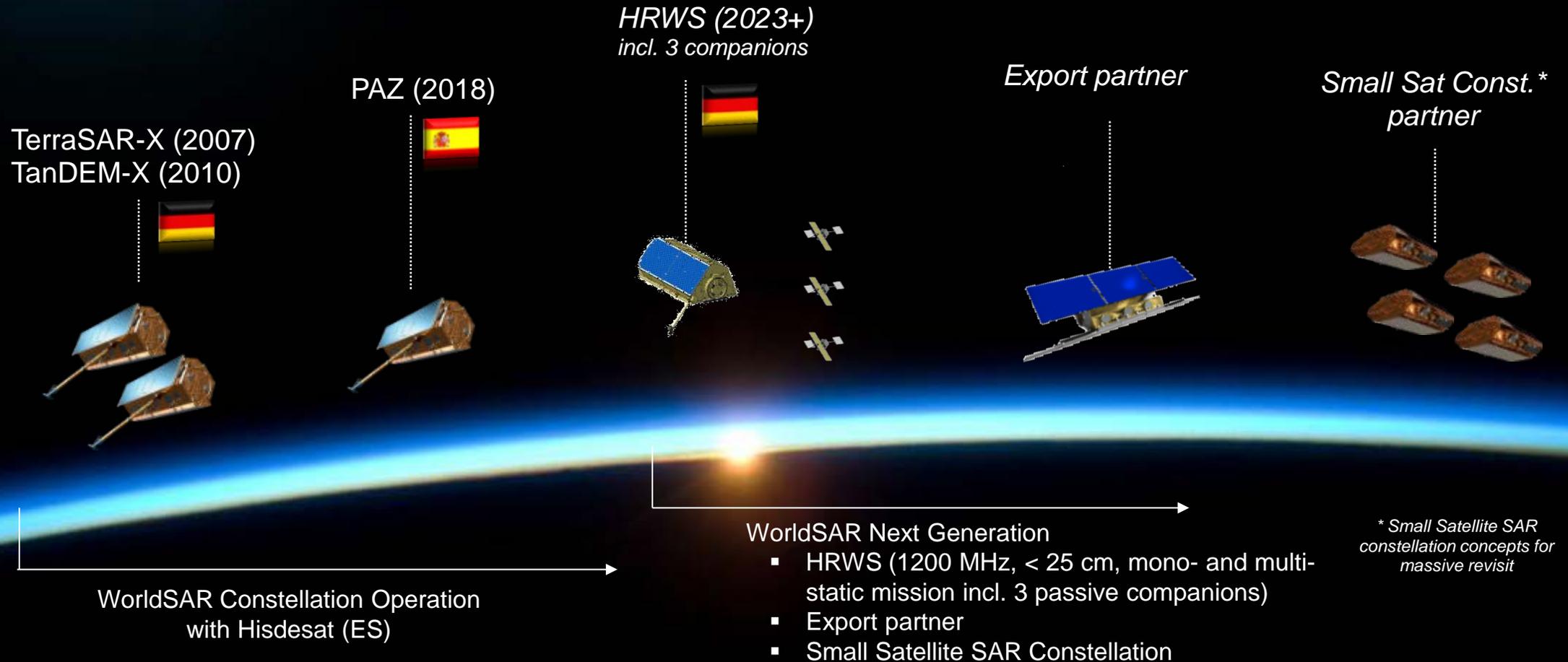
- 1) Initially, the primary data supplier carries out a so-called sensitivity check of requests for data transactions on a case-by-case basis. The **sensitivity check** is a key mechanism of the SatDSiG and includes parameter such as AOI, resolution, data latency, and recipient (one-off registration mandatory).
- 2) If the data supplier finds that the request is not sensitive, he may deliver the requested data. If he finds, however, that a request is sensitive, he may deny delivering the data or request a **review and authorization by a government authority** (30 days response time).



The past ten years...

- Generally very efficient, reliable and stable
- Sometimes a bit “rigid”... no room to maneuver... pretty German, indeed!
- Sensitivity check matrix results in one second and government review results typically two office days
- The map of concern: typically, no “rush” delivery in 30 days... but there are ways... let’s talk!
- Sensitivity rate increased: from 15% to 25% (sensitive countries, ST-mode, WDEM/ESRI, DRS/SSC-mode)
- Rejection rate <10% thanks to interactive consultation with customers
(“wait five days get the more precise product” or “accept 0.5m GSD reduction: from SL to SM”)

WorldSAR – Current and Future Missions



Level Playing Field: “one hand don’t clap”!

1. harmonized regulation to support international cooperation, e.g. WorldSAR
2. avoid double regulation both at national and international level
3. legal instruments may be different, but the actual effects shall be similar to identical as result of an appropriate balance between national security and industrial policy