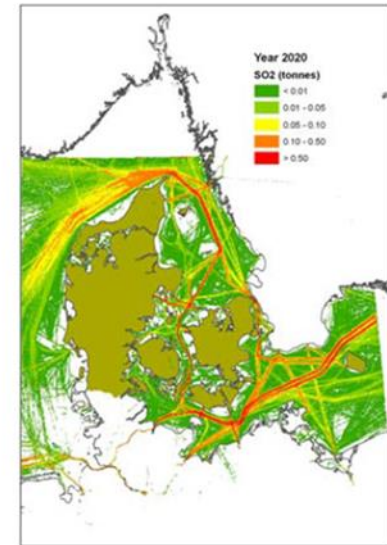
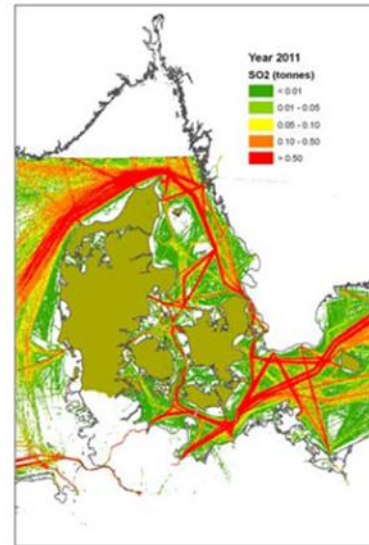


RPAS in Denmark



Maritime Surveillance

Danish Maritime Authority



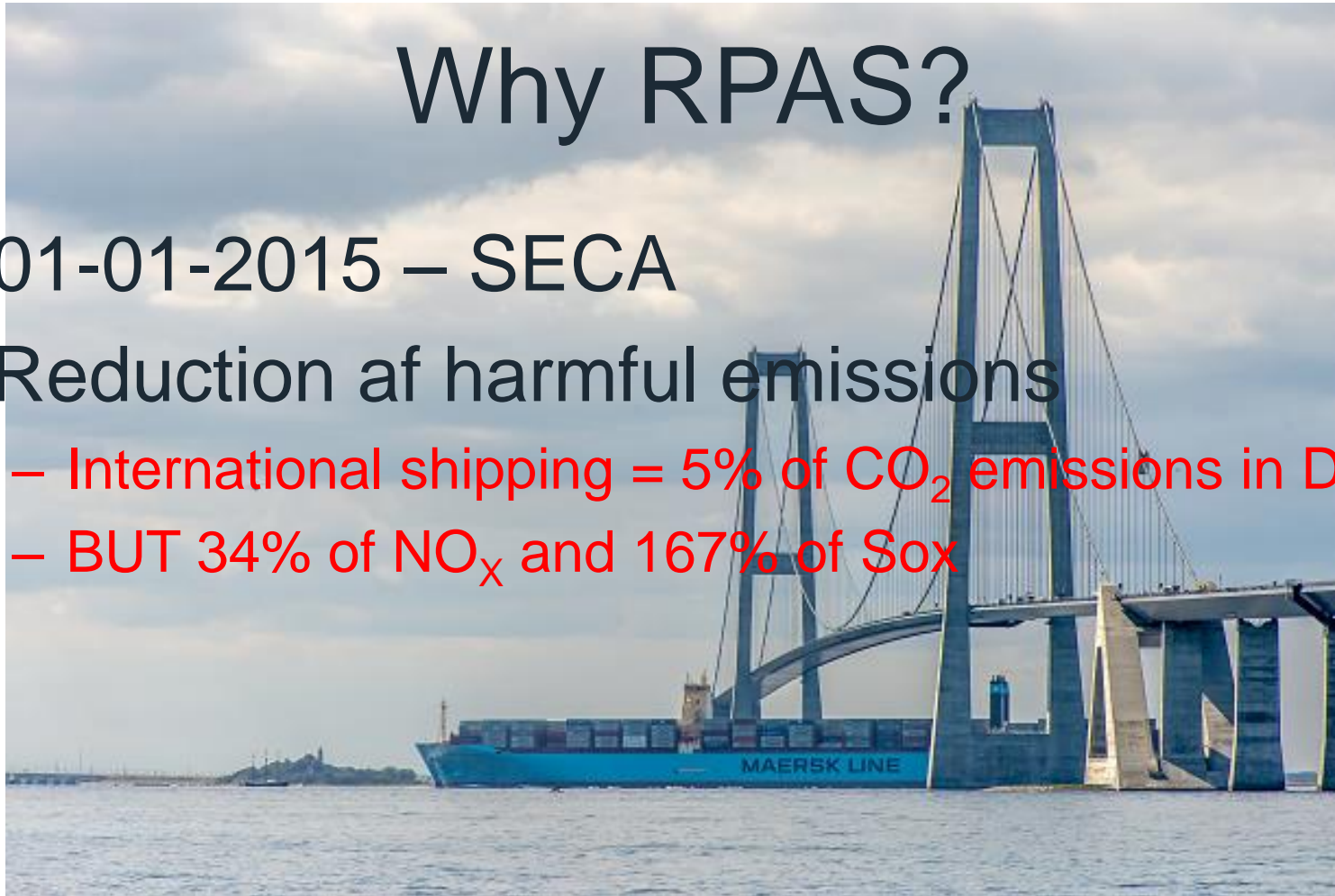
Who are The DMA?

- The Danish Maritime Authority is a part of the Ministry of Industry, Business and Financial Affairs.
- We are approx. 300 employees
- We have the role as the coastal, port and flag State



Why RPAS?

- 01-01-2015 – SECA
- Reduction of harmful emissions
 - International shipping = 5% of CO₂ emissions in DK,
 - BUT 34% of NO_x and 167% of Sox



The deal

- EMSA - DMA
- Contact to the relevant persons
- Other authorities
- Flight area



Challenges

- 2016-2019
- A lot of different people
- Drop of drone x 2





BUT.....

Do we want to try again?

Yes



Effective enforcement in Danish waters

Great Belt Bridge – “Sniffer”



What about 2020

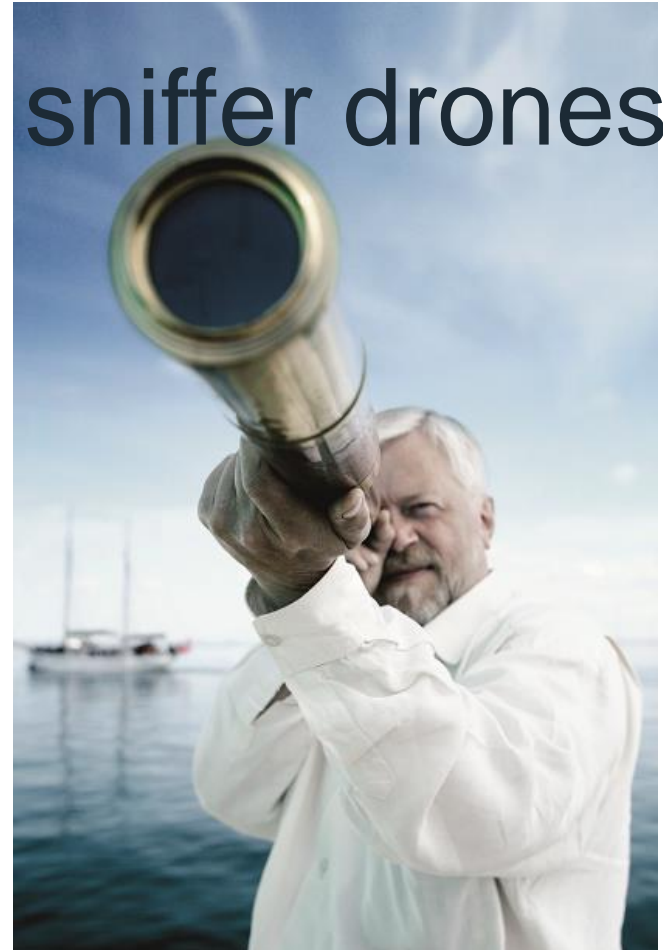


Air surveillance



The Future regarding sniffer drones

- Nox
- CO₂
- Multi purpose



6th expert sulphur meeting in Korsør, Denmark 23-26 September

- Data Sharing
- Workshops for PSCO – Scrubbers
- The use of portable equipment
- Jurisdiction and sanctions



International workshops on Sulphur enforcement



Workshop concept

- 3 workshops in three regions
- App. 20 participants in each workshop
- First half of 2020
- Detecting non-compliance
- PSC
- Sanctions
- Data sharing
- Etc
- **Funded through the Danish Maritime Fund**



The image shows a Bunker Delivery Note form from the Australian Government. The form is titled "Bunker Delivery Note" and includes a section for "MARPOL Annex VI" requirements. It contains fields for "Name and IMO number of receiving ship", "Port", "Date of commencement of delivery", and "Name, address and telephone number of marine fuel oil supplier". There is also a table for recording fuel oil delivery details, including "Product name(s)", "Quantity (metric tons)", "Density at 15°C (kg/m³)", and "Sulphur content (% m/m)".

DEN DANSKE
MARITIME FOND





Thank you

Link to video – the part about the sniffer drone begins 13 minutes
in: <https://www.youtube.com/watch?v=WmcnjdgAt9Q>

