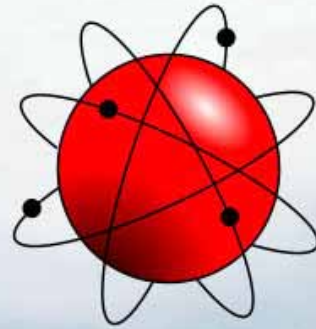


Laroute

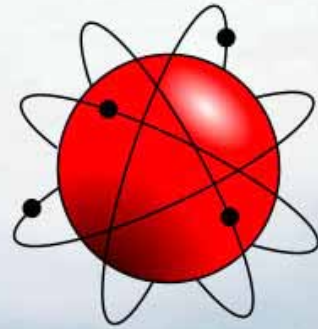
THE USE & APPLICATION OF ADDITIVES



Laroute

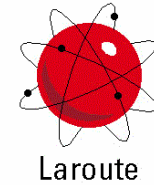


WHY DO WE USE ADDITIVES?



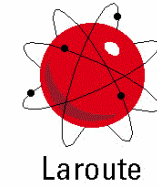
Laroute





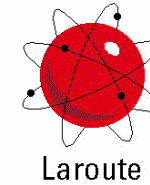
Additive Services

- NEEDS
- To satisfy contractual requirements
- To solve handling difficulties



Additive Services

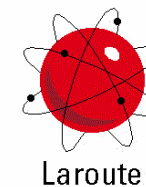
- Range of Additive Services



Additive Services

	H2S	PPD	Demulsifiers	CFPP	Lubridity	Cloud	Conductivity	Cetane
Crude Oil	X	X	X					
Fuel Oil	X	X	X					
Vacuum Gasoil		X	X					
Gasoil		X	X	X	X	X	X	X

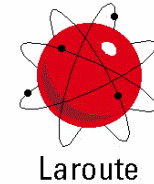
Handling requirements



This is mainly restricted to crude and fuel oils

- Pour Point
- H₂S scavenging

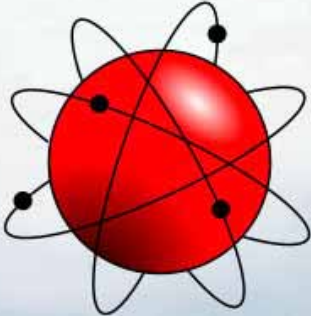
Contractual requirements



This is mainly restricted to Gasoil but does also include Fuel oil / VGO and crude oil

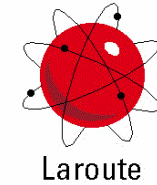
- Conductivity
- CFPP
- Cloud Point improver
- Pour Point improver
- Lubricity
- Cetane improver
- Demulsifiers

Equipment



Laroute

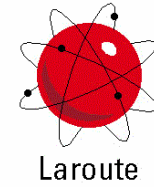




Equipment needed

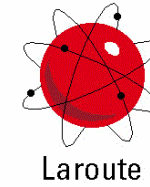
- Storage
- Pumps
- Manifolds
- Pump Houses
- Injection Trucks
- Production Plant
- People !!!!!

Equipment



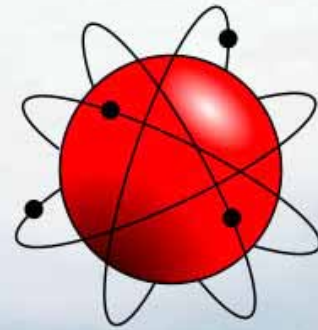
TIOGE - Ashkhabad - 11/2004

Equipment



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The Market zone



Laroute

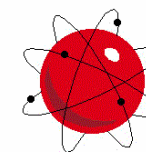


The Market zone



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Laroute - locations



Laroute

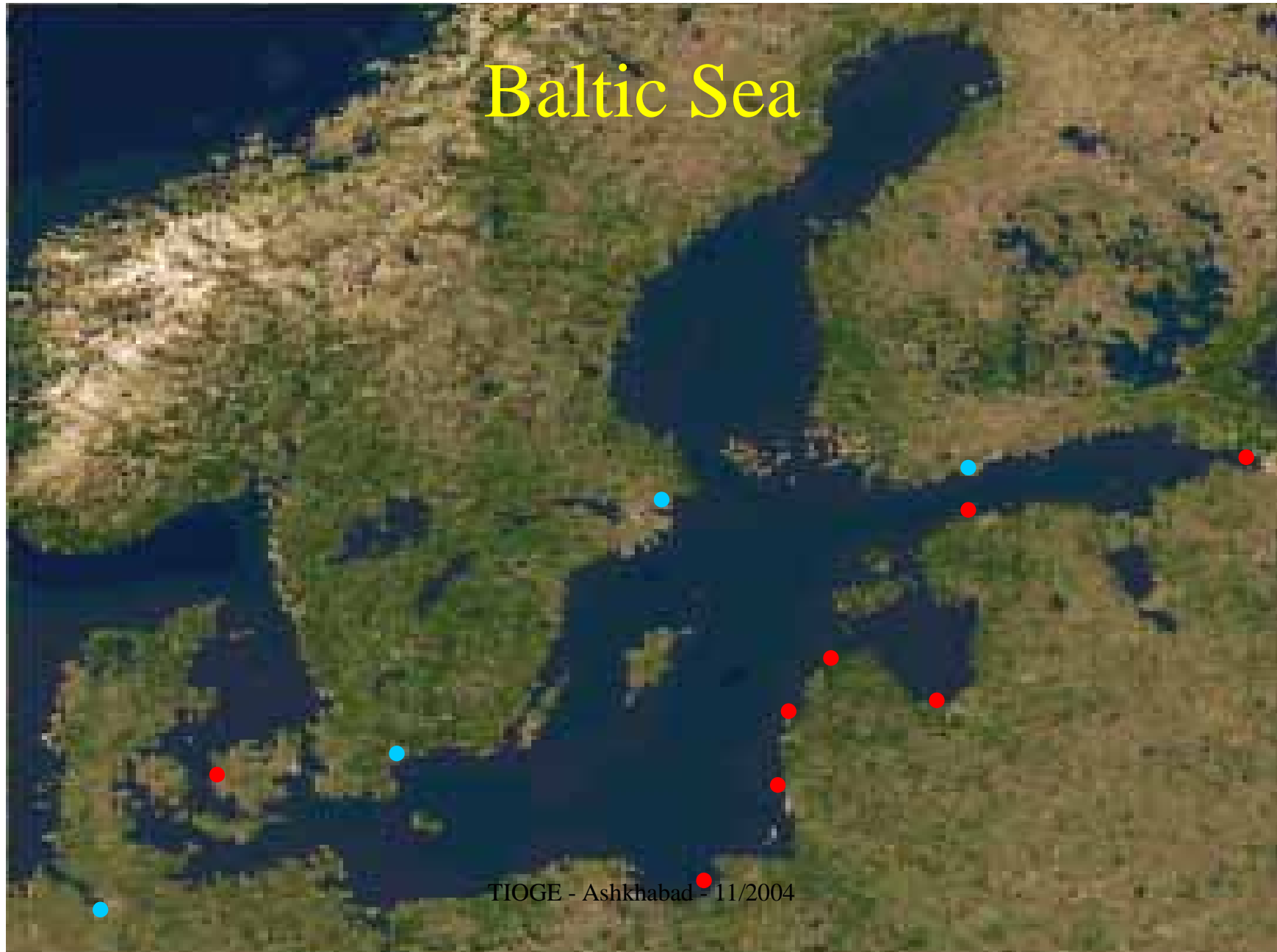


Black Sea



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Baltic Sea

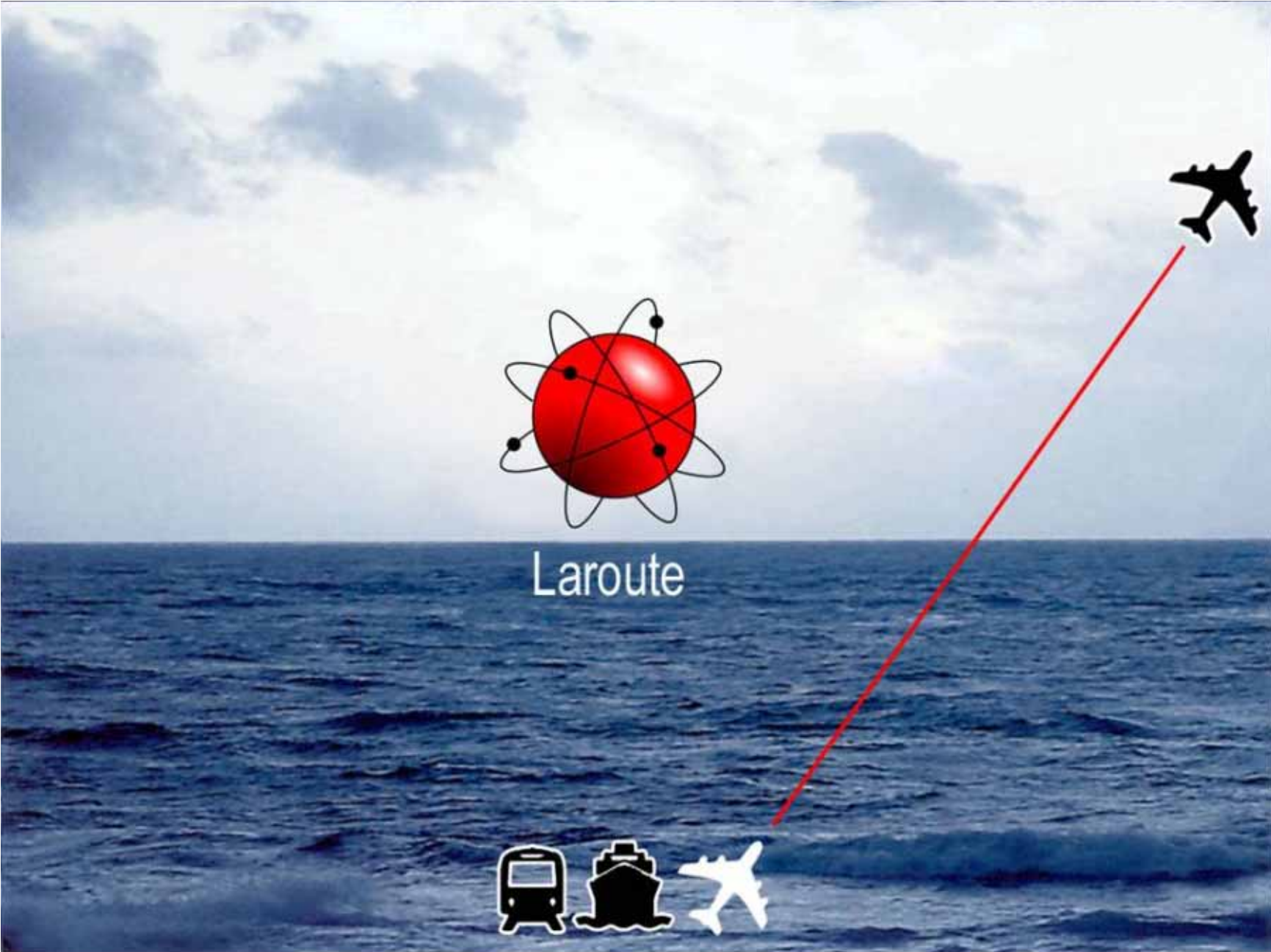


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The Caspian Sea Swap Zone



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Laroute