



Oil and Gas e-Health in Norway

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The shelf legislation....



gave the Norwegian state exclusive rights to natural values and the right to the distribution of licenses for exploration and extraction and transport of petroleum.

<http://www.norskoljeoggass.no/>

014 – NORWEGIAN OIL AND GAS RECOMMENDED GUIDELINES FOR MEDICAL PROFESSIONAL PREPAREDNESS FOR ACTIVITIES ON THE NORWEGIAN CONTINENTAL SHELF

These guidelines are recommended by Norwegian Oil and Gas Association's (Norwegian Oil and Gas) technical network for health and working environment, HSE Managers Forum and Norwegian Oil and Gas's Operations committee.

In recession times it is important times it is important to maintain the common **security culture**

The oil worker's total health care

The companies systems: Health is a part of the company system through IO (integrated Operations)

- Health Security Environment (preventive health care)
- Telemedicine, health preparedness, medical evacuation



Citizen rights in public health care- system also on work:

- Citizen rights - GP and hospital service
- Public system in emergencies used by worker (citizen) and company



Sector standard- (from the federation of companies)

Medical preparedness

1. **On-call physician** a physician who can be contacted at all times and can be summoned to the facility on the shortest possible notice, if necessary
2. **Contingency physician** a physician who is directly associated with the facilities' resources, area resources, the external resources and the regional resources in an emergency preparedness organisation
3. **Responsible physician** a physician appointed by the operating company who will have a special professional responsibility for the health service on the continental shelf

Access to public health service through Dispatch Centers/ call centers



Medical emergency resources

The Statoil model

ANSWAR Helicopters: 1 + 1 + 2

Emergency Wessels: 0 + 2 + 3



University Hospitals:

- Stavanger
- Haukeland (Bergen)
- St.Olav (Trondheim)
- Tromsø and (Hammerfest)

AMK- Dispatch Centers:

- Stavanger
- Haukeland (Bergen)
- St.Olav (Trondheim)
- UNN (Tromsø)
- Kirkenes



WR1149 Medisinsk transport

HELIKOPTER REKVIRERING - BARENTSHAVET

AMBULANSE 1-2 SYKE/SKADDE

Bore- og brønnoperasjoner

Statoil's requisition
and transport
systems
(Source: Statoil)

NB!

Denne varslingsplanen for Barentshavet er **ikke** kontinuerlig i drift. Benyttes når det er operasjoner i området.

Vaktlege benytter primært
AWSAR HFT for transport.

AWSAR HFT varsles alltid
via Statoil Luftransport.

Innretning

Vaktlege Hammerfest: 22 96 50 11

*Alternativ vaktlege Stavanger: 22 96 50 09

(Dersom begge alternativ over mislykkes ring: 22 96 50 05
SOS International responscenter)

Statoil Luftransport
Driftsvakt
Tlf: 482 05 319

AWSAR Hammerfest
Bristow
Tlf: 51 64 66 66

AMK Finnmark i Kirkenes
Tlf: 78 97 34 00

HRS NN (Nord-Norge)
Tlf: 75 55 90 00

330 Skvadron (Banak)
Tlf.: Via HRS NN
(15 minutter beredskap)

Alternativ varslings

Demands from Statoil according emergencies....

Medical indications, technical equipment present, personal and actions

Akuttmedisinske tilstander

- Akuttmedisinske tilstander krever rask reaksjon og evakueringsrespons
- Tidskritiske tilstander:
 - Brystsmerter/hjerteinfarkt
 - Pneumo-/hemothorax
 - Hjerneinfarkt/hjerneblødning
 - Multitraume
- Teknisk utstyr som EKG m.v. må finnes ombord på innretning og i helikopter
- Standardiserte protokoller må være etablert.

Krever følgende:

- At personell ombord og under transport har god akutt- og prehospital kompetanse (krav bør stilles)
- Personellet øvet og sjekket ut og eller sertifisert
- Adgang til effektiv og rask evakueringsressurs avgjørende
- Evakueringsressursen må være øvet for oppgavene
- Evakueringsressursen må være utstyrt med det mest moderne medisinske utstyr (utvikling må adresseres og prioriteres)

Statoil`s Telemedicine Concept (Source : Statoil)

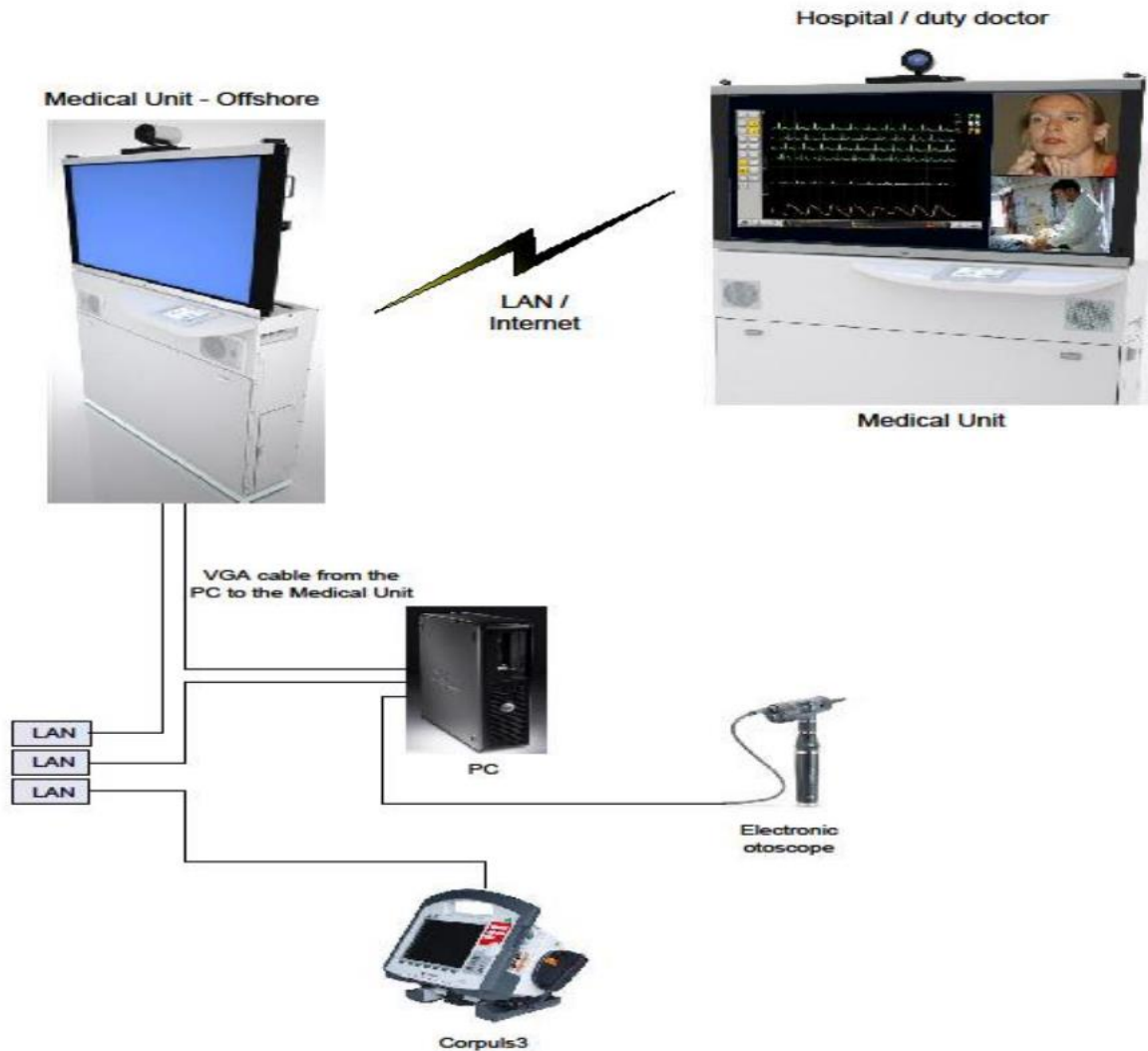


- Initial pilot 2007, all Statoil installations on the NCS operational 2009
- Real time data and image transfer to shore
 - ECG and monitored patient data
 - Image- and video transfer of skin diseases, ear, eye, wounds/cuts etc.
 - Video assisted Ultrasound examination and diagnostics (pilot)
- Real time onshore medical examination, assistance and diagnostics from
 - Haukeland University Hospital, Bergen
 - St.Olav`s Hospital, Trondheim
 - Stavanger University Hospital, Stavanger
 - University Hospital Northern Norway, Tromsø
 - AMK Finnmark i Kirkenes (**planning**)

2006



The Statoil Model-



Communication through vital data monitor

CORPULS 3



- Used / standardized by Statoil +
- Chosen as standard monitor for pre-hospital services in public Norwegian Health Care



What is Shell doing....



Traditional specialist Nurse/ Medic on the installation-
Physician on duty on shore. Using the VEMI and Cgate experience.

Combine Shells private health service and the resources in
public health- the NSMM (Norwegian Centre for Maritime
Medicine, Haukeland, Bergen)

“Shell Petroleum Development Company Ltd. is piloting an
internet-based telemedicine system called VSee®.”

“The Noble Globetrotter II deep-water drilling ship currently
operates for Shell off the West African coast. It uses a
telemedicine system to connect via satellite with any of 12
hospital departments at the University of Haukeland in
Norway.”



Use of virtual room in communication..

