



The image shows a massive offshore oil or gas platform at night. The structure is a complex network of steel beams and walkways, with numerous lights illuminating the platform and its surroundings. In the background, the dark blue ocean stretches to the horizon under a clear sky.

**Telemedisin som integrerte operasjoner
i Statoil**

Støtte fra land ved sykdom offshore

11/28/2013

The Statoil logo, featuring a stylized pink flower-like symbol above the word "Statoil".

Integrete operasjoner



The diagram illustrates the concept of integrated operations. It features three separate images of an oil rig: one silhouette against a light sky, one from a distance on the water, and one showing more detail of the structure. Arrows point from each image to a photograph of a control room. In the control room, several people are seated at long desks, each equipped with multiple computer monitors displaying various data and video feeds. This visualizes how different parts of the operation (drill site, platform, and land-based control) are interconnected through real-time communication and monitoring.

Operasjons- og beslutningsstøtte på land

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The Statoil logo, featuring a stylized pink flower-like symbol above the word "Statoil".

Centres of expertise

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Emergency preparedness

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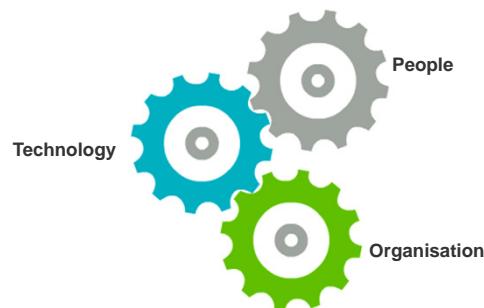
Telemedicine



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Integrated Operations



Collaboration across all boundaries

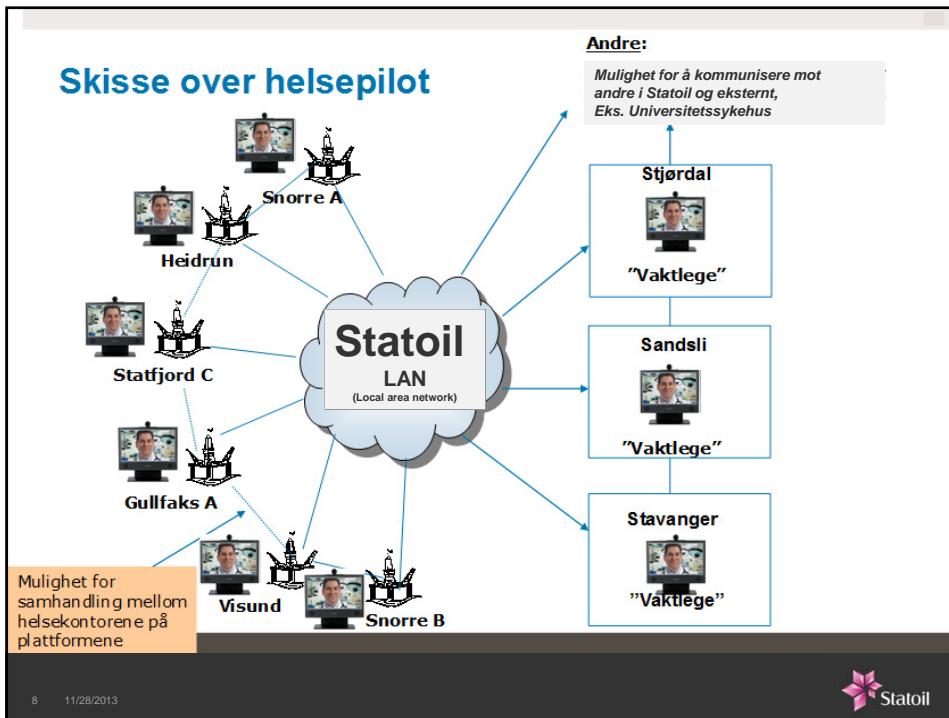
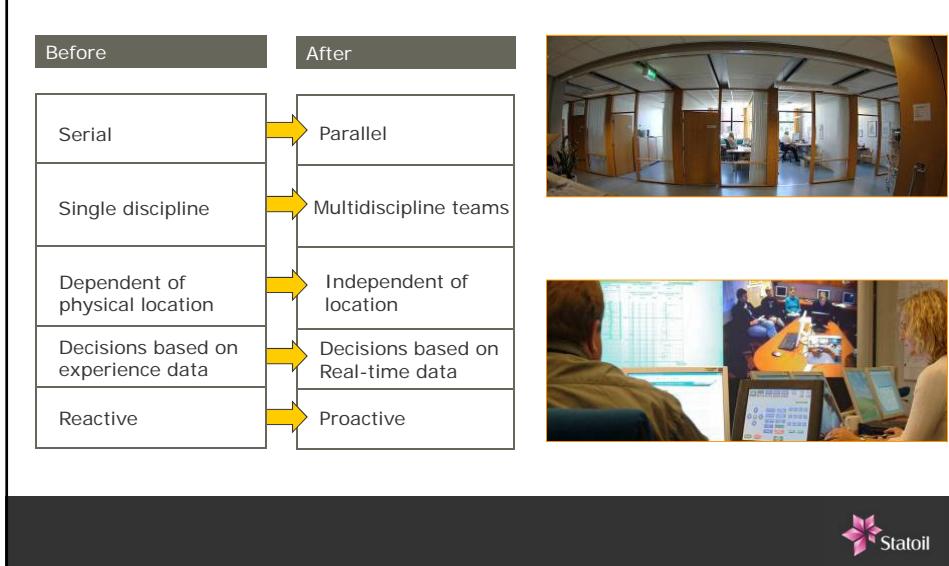
Connectivity gives us the ability to develop new work processes and link the right people with the right information at the right time. By networking our global competences across disciplines, organisational units, onshore and offshore, companies and countries we integrate people, processes, technology and organizations to get safer and better decisions, faster.

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Integrated Operations

Work processes



IO contributing to improved HSE Statoil's Telemedicine Concept



- Initial pilot 2007, all Statoil installations, 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 (soon startup)

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Corpus³ New advanced ECG equipment



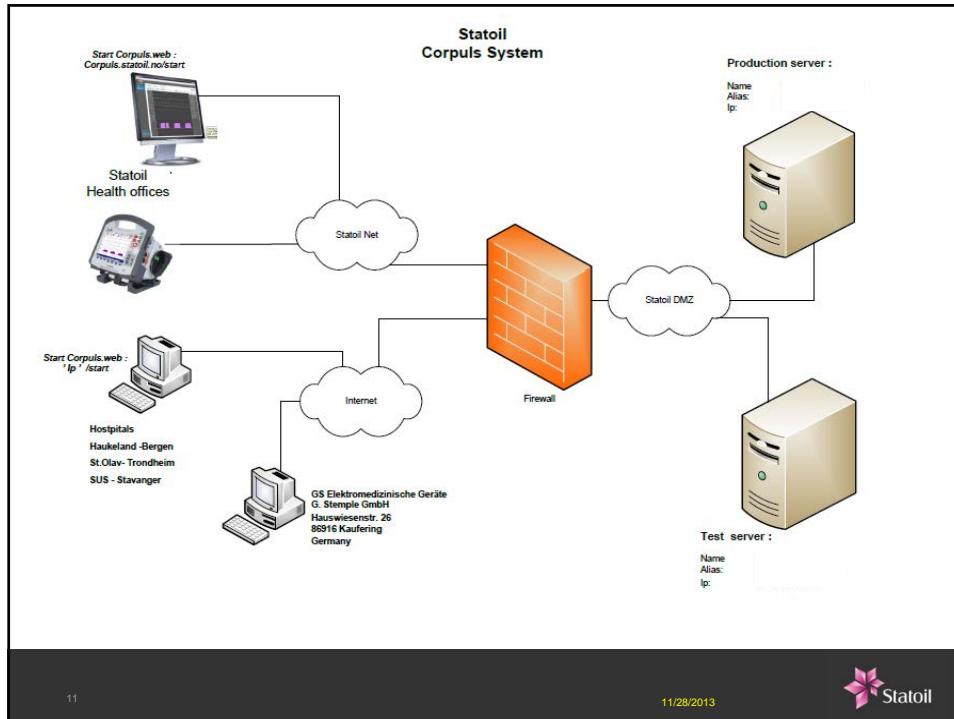
Assembled

Divided in 3 functional parts.
Wireless connections.

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Telemedicine equipment in use today



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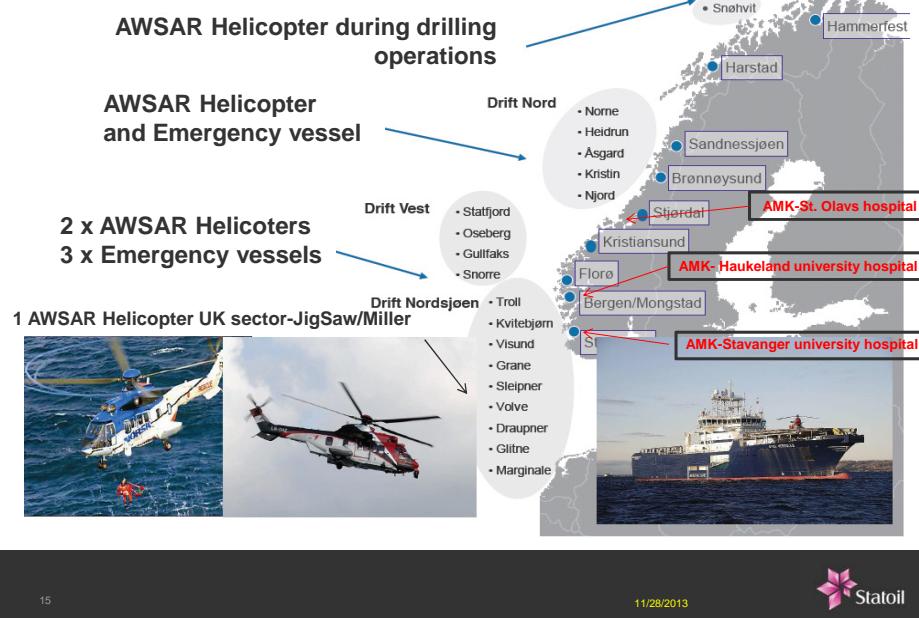
Medical Unit – Crestron print function



Medical Unit – Electromedical equipment



Medical emergency resources



Videoassistert opplæring og sertifisering

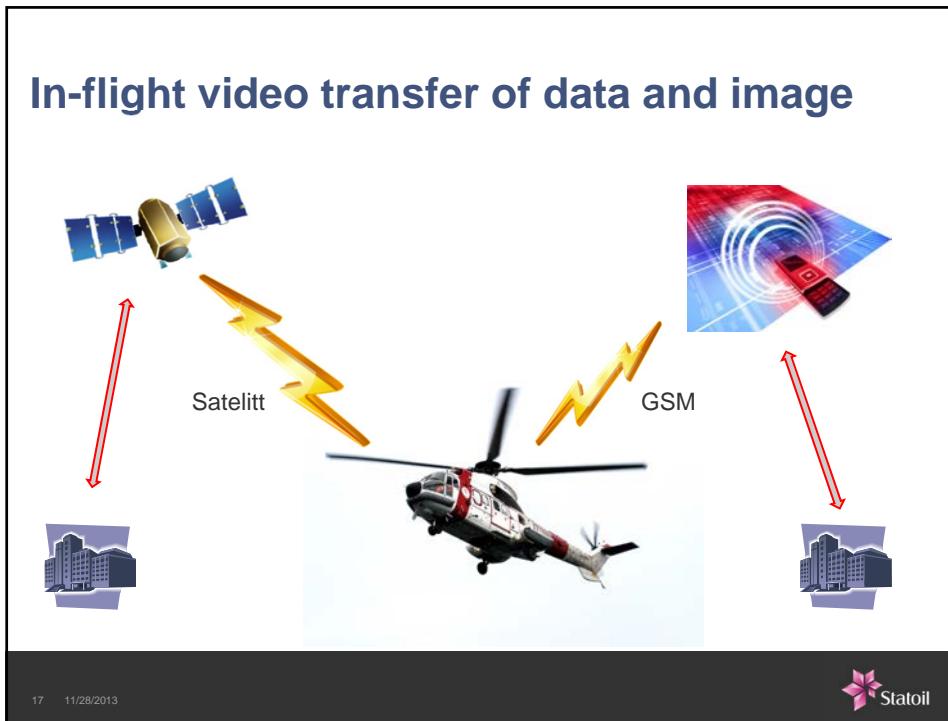
På plass i dag:

- Undervisning i bruk av elektronisk otoskop → «Otoskopi»
- Undervisning i medisinsk problem → «Rødt øye»
- Elektronisk stetoskop (kommer)
- Oversendelse og tolkning av EKG – Sanntids overføring



Framtidige muligheter:

- Videoassistert sertifisering og resertifisering av helsepersonell og førstehjelgere i AHLR og DHLR (vurderes gjennomført med fasilitatorer på land. Avanserte dukker som fjernstyrtes).
- Videoassistert ultralyd undersøkelse (benytte 4 faste protokoller). Ekspertar på land/vakteleger som kan veilede og tolke
- Etablere flere opplæringstiltak med basis i allmennhelsetjeneste så som:
 - Hudproblematikk
 - Kjemikalie-/etseskader
 - Flere?



Slide 19

Point-of-care ultrasonography

- Focused examinations performed at the patient's bedside.
- Development of small hand-held ultrasound machines.
- An important adjunct to the clinical examination in some settings
- Potentially life-saving



Slide 20

Project Telementored Ultrasonography

- ~30 volunteering workers at Statfjord C
- Expert located on shore with standard 46" monitor
- FATE and E-FAST
- Storage of video of about 6 seconds for every position (14)
- Scoring by independent experts in ultrasonography
- Scoring system: 1-5; clinically useful: 3-5



Slide 21

Conclusions

- Full scale telemedicine implemented on Statoil-operated installations on the NCS in 2009
- Integrated with defibrillator/monitoring unit, othoscope
- User satisfaction is high (including MD on-call)
- Improvement of the communication
- Better and safer primary diagnosis
 - Avoid unnecessary use of SAR-helicopter
- Telementored ultrasonography is a feasible option
- Important: The receiver must have the appropriate competence
- Equipment; how far do we go and where?



An integrated future





There's never been a better time for good ideas

Whats next regarding simulation training?

Why not try:

Remote simulation and facilitation through real-time video solutions

Offshore Telementored Simulation

Simple, almost anywhere, with almost anyone?

Telemedisin som integrerte operasjoner i Statoil

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