# Advanced Antenna Systems



- Complete antenna and control systems
- Integration of radio systems
- Interfaces to integrated communications systems
- Broad product / frequency range
  - HF 1.6-30 MHz
  - VHF/UHF 30-3000 MHz
- Tuneable VHF and HF antennas
- Customised solutions



#### Comrod Group – Key Facts



- Comrod designs and manufactures antennas, masts, power supplies and accessories for the defence and civil market.
- Corporate Headquarters near Stavanger, South-west Norway.
- Manufacturing facilities in Tau, Norway; St Amand Les Eaux, France; and Budapest, Hungary.
  Design facilities in Asker near Oslo.
- Sales and warehousing operation in Cleveland, US.
- Approximately 90% of sales to the defence market
- Approximately 95% of the turnover is exported



**Comrod Norway** 

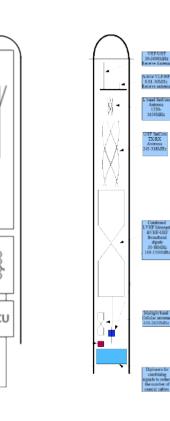


**Comrod France** 

#### Submarine Antenna Systems



- Multiband multifunction antenna system 30-3000 MHz TX 10 KHz to 3000 MHz RX
- Tuneable HF Antenna -Fast tuning due to direct interaction with multiple TRx'
- Up to 1000W power (HF)
- Antenna Control System (ACS) -Combines multiple transceivers with multiple antennas



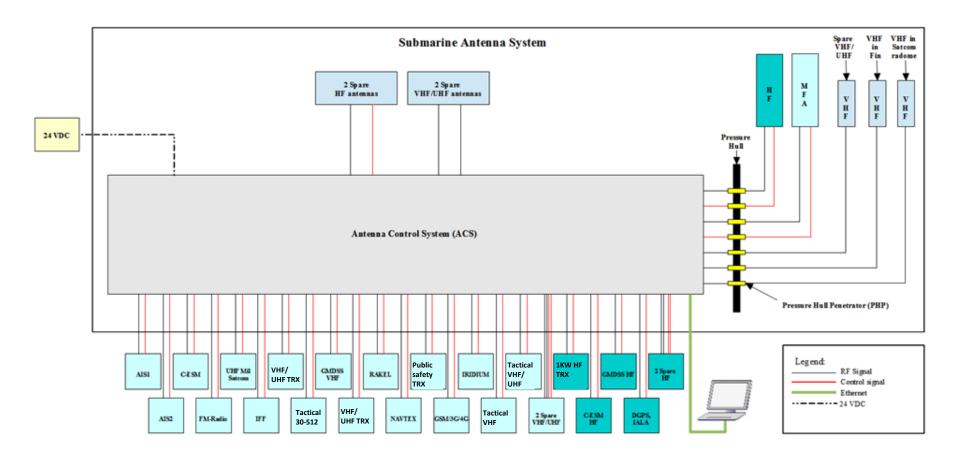
HF Switch



# Submarine Antenna Systems



Antenna Control System (ACS) - Combines Multiple Transceivers with multiple antennas



#### Flat Panel Antennas



- Integrated antennas for surface ships
- Multiple antennas -

108 - 400 MHz

108 - 174 MHz

225 - 400 MHz

 Antenna Control System (ACS)





# Stealth Corvette Antenna System



- Antenna control system (ACS) allows all VHF/UHF transceivers to transmit simultaneously behind a frequency selective surface - FSS
- All VHF/UHF receivers use a common antenna
- Telescopic Tx/Rx antenna for low-VHF
- Directional transmit antennas controlled via ACS



# Shipboard HF Naval Loop



- Compact HF loop antenna 1.6-30 MHz
- Superior NVIS performance
- Superior signal-to-noise ratio compared to an HF whip
- Suitable for multiple top-side antenna installations with reduced co-site interference
- Continuous communications in groundwave, NVIS and Skywave applications



#### Key Customers



#### **OEMs:**

Harris, Thales, Racoms, Rhode & Schwarz, Rheinmetall, KMW, SaaB Kockums, FMV, General Dynamics, EADS, Elbit, Ultra TCS, Selex, Bharat Electronics, Kongsberg, Rockwell Collins, Indra Sistemas, MBDA, Bae Systems, Sagem, Dicom...

#### **Countries:**

All NATO countries, India, Mexico, Brazil, South Korea, Singapore, Japan, Australia, South Africa, Israel, UAE, Oman, Qatar, KSA, Egypt, Morocco, Algeria, Tunisia...



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