Survey equipment RNLN

The Royal Netherlands Navy uses the following equipment for the civil survey program and the out of area naval operations (REA):

1. 2 Coastal survey vessels Snellius class.
    a. Multibeam EM3000D
    b. Singlebeam EA 600 (12/38/200 kHz)
    c. Octans II MRU
    d. MVP-100 Moving vessel profiler
    e. Klein 5500 SSS
    f. QINSy datalogging / processing
    g. 7Cs AML production capability
    h. ISIS SSS datalogging / processing
    i. 2 Thales Aquarius II (LRK/IALA/Veripos/EGNOS/WAAS)
    j. 1 single ship sweep system
    k. 1 magnetometer MM Seaspy
2. 2 Survey motorboats:
    a. Multibeam EM3002D
    b. Singlebeam EA 400 (12/38/200 kHz)
    c. Octans III MRU
    d. C-max SSS
    e. Digibar SV profiler
    f. QINSy datalogging / processing
    g. 7Cs AML production capability
3. 1 Mobile survey package to support LPD HNLMS Rotterdam:
    a. Ohmex Sonarlite
    b. Leica MX412 dGPS
    c. Seatex MRU-H
    d. Helmsman Data Display (Vyner)
    e. C-Max CM800 Side Scan Sonar towfish / P-Sea Master 800
    f. plotter Hewlett Packard HP2500C
    g. HyPack Max
4. Additional equipment:
    a. 10 Bottom pressure tide gauges MORS OT600P, to be replaced by SAIV bottom pressure tide gauges.
    b. 1 Thales NDS-200 Differential reference station
    c. 2 Aquarius LRK reference stations
    d. 1 spare Klein 5500 SSS
    e. 2 REMUS AUV's for military operations
5. Survey equipment to be procured:
    1 mobile survey package to support new LPD HNLMS Johan de Witt, staff requirements approved. Procurement in 2006/2007.
6. Further developments and research w.r.t. survey:
    a. Refining survey standards and equipment configurations
    b. Standard survey operating procedures, aiming at certification to ISO 9001:2000
    c. Implementation of the CUBE algorithm in QINSy (QLOUD)
    d. Sea bottom monitoring research to refine frequency of resurvey
    e. Reliability of wreck survey by MBES / requirement for wreck sweeping
    f. Implementation of acoustic sediment classification on SBES/MBES/SSS