

Published by



Mittler Report Verlag GmbH
A company of the TAMM Media Group

Publisher and Editor-at-Large: Stephen Barnard (sb)

Editor-in-Chief: Jürgen Hensel (jh)

Designated Editor-in-Chief: Mark Cazalet (mc)

Editorial Staff: Rolf Clement (rc, Political Affairs), Waldemar Geiger (wg, Infantry, Industry), Wolfgang Gelpke (wge), Gerhard Heimig (gwh, News, Land Forces), Rolf Hilmes (rh, Army Technology), Hans-Uwe Mergener (hum, Naval Forces)

Online Editor and Webmaster www.euro-sd.com: Jack Richardson (jr)

Copy Editor: Christian Kanig (ck)

Regional Correspondents

Belgium/EU/NATO: Joris Verbeurgt (jv), **Brazil:** Roberto Guimarães de Carvalho (rgc), **Denmark:** J. Bo Leimand (jbl), **France:** David Saw (ds), **Georgia:** Beka Kiria (bk), **India:** Suman Sharma (ss), J C Menon (jcm) **Israel:** Tamir Eshel (te), **Italy:** Luca Peruzzi (lp), **Japan:** Shinichi Kiyotani (sky), **The Netherlands:** Jaime Karremann (jk), **Poland:** Grzegorz Sobczak (gs), **Portugal:** António Brás Monteiro (abm), **Spain:** Esteban Villarejo (ev), **Taiwan, North & East Asia:** JD Kitsch (jdk), **Turkey:** Korhan Özkilinc (kÖ), **UK:** Christopher Foss (cf), Tim Guest (tg), **Ukraine:** Alex Horobets (ah), Reuben F Johnson (rfj), **USA:** Sidney Dean (sd), Chet Nagle (cn)

Layout:

AnKo MedienDesign GmbH, Germany

Production:

Lehmann Offsetdruck und Verlag GmbH, 22848 Norderstedt, Germany

Office Address:

Mittler Report Verlag GmbH
Beethovenallee 21, 53173 Bonn, Germany
Phone.: +49 228 35 00 870, Fax: +49 228 35 00 871
info@mittler-report.de, www.mittler-report.de

Managing Director: Peter Tamm

Editorial Director: Lars Hoffmann (lah)

Authorised Signatories: Waldemar Geiger, Lars Hoffmann

Advertising, Marketing and Business Development

Stephen Barnard

Phone: +49 228 35 00 886, Mobile: +44 7984 033154
stephen.barnard@mittler-report.de

Stephen Elliott

Phone: +49 228 35 00 872, Mobile: +49 1590 173 0346
stephen.elliott@mittler-report.de

Waldemar Geiger

Phone: +49 228 35 00 887
waldemar.geiger@mittler-report.de

Dr. Andreas Himmelsbach

Phone: +49 228 35 00 877
andreas.himmelsbach@mittler-report.de

Exhibition Management and Advertising Administration: Renate Herrmanns

Advertising Accounting: Florian Bahr

Subscription/Reader Service:

PressUp GmbH, PO Box 70 13 11,
22013 Hamburg, Germany
Phone: +49 40 38 66 66-319, Fax: +49 40 386666-299
Email: mittler-report@pressup.de

European Security & Defence, © 2022 Mittler Report Verlag GmbH

All rights reserved. No part of this publication may be reproduced without prior written permission of the publisher in Bonn.

Annual subscription rate: €82.50 incl. postage

Reduced annual subscription rate for distribution in Germany:
€64.90 incl. postage

■ MARITIME POLICY, STRATEGY & FORCES

- 10 **French Naval Procurement Programmes: Status Report**
Bruno Huriet
- 18 **Regionally Rooted – Globally Committed: The German Navy's Response to Current Challenges**
Interview with Vice Admiral Jan C Kaack, "Inspekteur der Marine" (Chief of the German Naval Staff)
- 24 **India's First Indigenous Aircraft Carrier**
Suman Sharma
- 26 **Baltic Naval Procurement: Status Report**
Conrad Waters
- 36 **Strategic Competition in the Arctic**
Scott Savitz

■ SHIP DESIGN AND TECHNOLOGIES

- 42 **Mine Countermeasure Vessel Programmes and Requirements in Europe**
Guy Toremans
- 48 **EU Looks to MIRICLE for MCM Future**
Tim Guest
- 52 **European and US Heavyweight Torpedoes Continue to Evolve**
Luca Peruzzi
- 60 **The Quest for Naval Firepower**
Doug Richardson
- 65 **Directed Energy Weapons at Sea**
Suman Sharma
- 68 **Equipment for Combat Swimmers**
André Forkert
- 74 **Sea Change for the LCS?**
Littoral Combat Ship Faces New Uncertainty
Sidney E. Dean
- 79 **Naval Unmanned Aerial Systems**
High-End Systems Join NATO Nations' Fleets
Sidney E. Dean
- 84 **High Speed Naval Vessels**
Sidney E. Dean
- 90 **Unmanned Surface Vessels: Enhancing the Battle Force**
Sidney E. Dean

MARITIME INDUSTRY

- 96 **Conventional Submarine Builders**
Bob Nugent
- 100 **Logistic Support Ship Programmes:
Status Report**
Conrad Waters

MARITIME OPERATIONS & DOCTRINE

- 105 **Offensive Ambition:
Recapitalising the US Navy's Mine Inventory**
Richard Scott
- 109 **Winning the War at Sea**
Reshaping the USMC for Future Naval Campaigns
Peter Layton

COLUMNS

- 1 **Editorial**
- 4 **Periscope**
- 9 **The Watch Bill**

Cover Photo: Delivered in November 2020, the first-of-class of the French Navy's new SUFFREN class nuclear-powered attack submarines entered service on 1 June 2022. Page 10 pp. (Photo: Axel Manzano/Marine Nationale/Défense)

Index of Advertisers

| | |
|-----------------------------|---------------------------|
| Abeking & Rasmussen | 43 |
| Aeromaritime | 17 |
| Aselsan | 39 |
| Atlas Elektronik | 45 |
| CANSEC | 3 rd cover |
| Dassault Aviation | 11 |
| DEFEA | 63 |
| DNV | 21 |
| Hagenuk | 9 |
| IAI | 2 nd cover, 31 |
| IAV | 73 |
| IDEAS | 55 |
| Ixblue | 29 |
| Kohler | 99, 111 |
| Marine Alutech | 23 |
| MBDA | 19 |
| Mittler | 93 |
| Naval Group | 13 |
| Plath | 25 |
| Safran | 15 |
| SAHA | 59 |
| Siemens Energy | 33-35 |
| SOFEX | 77 |
| Thyssenkrupp Marine Systems | 4 th cover |

Masthead

Maritime Defence Monitor

ESD/MDM · EURONAVAL Special Issue,
October 2022
ISSN 1617-7983



Published by



Mittler Report Verlag GmbH
A company of the TAMM Media Group

Editors-in-Chief: Capt. (ret) Hans Uwe Mergener (hum), Conrad Waters (cw)

Online Editor: Jack Richardson (jr)

Publisher: Peter Tamm (pt)

Regional Correspondents

Black Sea-Central Asia: Korhan Özkilinc, **France:** David Saw, **India:** Suman Sharma, **Israel:** Tamir Eshel, **Italy:** Luca Peruzzi, **NATO:** Joris Verbeurgt, **Nordic-Scandic:** J. Bo Leimand, **The Netherlands:** Jaime Karremann, **Spain:** Esteban Villarejo, **USA:** Sidney Dean

Layout:

AnKo MedienDesign GmbH, Meckenheim, Germany

Production:

Lehmann Offsetdruck und Verlag GmbH, Norderstedt, Germany

Office Address:

Mittler Report Verlag GmbH
Beethovenallee 21, 53173 Bonn, Germany
Phone.: +49 228 35 00 870, Fax: +49 228 35 00 871
info@mittler-report.de, www.mittler-report.de

Managing Directors: Peter Tamm

Advertising, Marketing and Business Development

Stephen Barnard
Phone: +49 228 35 00 886, Mobile: +44 7984 033154
stephen.barnard@mittler-report.de

Stephen Elliott
Phone: +49 228 35 00 872, Mobile: +49 1590 173 0346
stephen.elliott@mittler-report.de

Waldemar Geiger
Phone: +49 228 35 00 887
waldemar.geiger@mittler-report.de

Dr. Andreas Himmelsbach
Phone: +49 228 35 00 877
andreas.himmelsbach@mittler-report.de

Exhibition Management and Advertising Administration: Renate Herrmanns

Advertising Accounting: Florian Bahr

Subscription/Reader Service:

Mittler Report Verlag GmbH
Beethovenallee 21
53173 Bonn
Phone: +49 228-35888-70
Email: info@mittler-report.de
Maritime Security & Defence, © Mittler Report Verlag GmbH

The views expressed are not necessarily those of the editors or publisher.

All rights reserved. No part of this publication may be reproduced without prior written permission of the publisher in Bonn.

Annual subscription : contact the Subscription/Reader Service