

**INTERNATIONAL COLLABORATION IN WEAPONS
AND EQUIPMENT DEVELOPMENT AND PRODUCTION
BY THE NATO ALLIES:
TEN YEARS LATER – AND BEYOND**

ATLANTIC SERIES

*A collection of studies related to the North Atlantic Treaty
Organization*

No. 11

International Collaboration in Weapons
and Equipment Development and
Production by the NATO Allies:
Ten Years Later — and Beyond

ALEXANDER H. CORNELL

NATO Fellow, 1979-80



1981

MARTINUS NIJHOFF PUBLISHERS

THE HAGUE/BOSTON/LONDON

Distributors:

for the United States and Canada

Kluwer Boston, Inc.
190 Old Derby Street
Hingham, MA 02043
USA

for all other countries

Kluwer Academic Publishers Group
Distribution Center
P.O. Box 322
3300 AH Dordrecht
The Netherlands

Library of Congress Catalog Card Number: 81-51953

ISBN 90-247-2564-X (this volume)

ISBN 90-247-3001-5 (series)

Copyright © 1981 by Martinus Nijhoff Publishers, The Hague.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, mechanical, photocopying, recording, or otherwise, without the prior written permission of the publisher.

Martinus Nijhoff Publishers, P.O. Box 566, 2501 CN The Hague, The Netherlands.

PRINTED IN THE NETHERLANDS

Contents

Preface	ix
Acknowledgements	xi
Chapter 1. <i>Introduction</i>	1
The Approach	1
The Dilemma	3
Some Basic Facts	5
The Purpose	8
Chapter 2. <i>The 1969 Analysis of Collaboration — A Starting Point</i>	10
Hypotheses and Findings	10
Some Additional Organizational and Managerial Conclusions — 1969	13
Chapter 3. <i>The 1979 Analysis of Collaboration — The Pivotal Point</i>	17
NATO Airborne Early Warning and Control System (AWACS): A NATO Project	17
Background	17
Purpose	18
Costs	18
The System	19
Organization and Management	19
Problems and Offsets	19
Summary and Postscript	21
Roland — An Integrated Surface-to-Air Defense Missile: A Tri-National Project	22

Background and Participants	22
Purpose	23
Costs and Offsets	24
The System	24
Organization and Management	25
Summary and Postscript	25
F-16 — A High Performance Fighter Aircraft: NATO's	
Newest Military/Industrial/Economic Project	26
Background	27
Purpose and Participants	27
Costs and Offsets	28
Organization and Management	28
Problems	29
Summary and Postscript	30
Some Early Observations	30
Chapter 4. <i>Thirty Years of Efforts</i>	35
Thirty Years of Peace	35
Accomplishments and Potentials: Programmes and	
Projects	36
Pending Programmes and Projects in Electronic Warfare	
(EW)	45
Other Major Initiatives Underway	45
Additional Programmes, Projects and Consortia Under	
Discussion — 1979	46
Reduction/Standardization or Interoperability Potentials	47
Accomplishments and Potentials: Organizational/Institutional/	
Structural Concepts and Modes of Collaboration	48
NATO Sponsored/Affiliated/Related Structures/Concepts	
and Modes	48
Other Structures, Concepts, and Modes Concerned With	
Commonality	59
Summary	69
Chapter 5. <i>Argumentation For and Against Collaboration</i>	
<i>and Some Recent Initiatives</i>	71
National/Governmental Arguments	71
Nationalism	71
Duplication is "Necessary"	72

Custom/Pride/Not-Invented-Here	73
Independence vs. Interdependence	73
Case-in-Point: U.S. Policy Changes	74
Other Nations	75
Industrial Arguments	75
Industrial Size and Success	75
The State-of-the-Art/Technology	76
NATO Nation Armament Industries	77
Research and Development; Production and Sales	79
Scientific Cooperation — A Bright Area	80
Economic Arguments	81
Economic Nationalism	81
Market “Imperatives”	82
Cost-Effectiveness and Efficiency	82
Economics and Alliance Goals	83
Objectives, Policies, Plans, Profits and Budgets	84
National Sales Attitudes	85
Economics and the Two-Way Street	85
Political Arguments	86
Executives/Legislators and the Public	86
Power and Inequalities	87
The Political Argument for a North Atlantic Political Community	87
Military/Strategic/Doctrinal Arguments	87
Military Dependence vs. Independence	87
The Military Need for More Voice in New Weapons	88
Military Communications/Command and Control	89
The Military/Industrial/Governmental Complex	89
NATO Arguments	89
Institutional/Organizational/Managerial Arguments	90
Institutional/Governmental/Industrial Shortcomings	90
Management/Business Functions in Collaborative Efforts	91
Miscellaneous Managerial Arguments	92
Summary	92
NATO’s Management Orphans	93

Chapter 6. <i>The Challenge to NATO: A Time for Decisions and Action</i>	95
The Story Thus Far	95
Half-Truths, Myths and Certain “Deliberate” Thinking Which Have Prevailed	96
Chapter 7. <i>Towards the Goal of Commonality: An Achievable Framework</i>	99
National and NATO Self-Analyses and Agreements Required	99
Approaches/Options for Attaining International Military Standardization	101
Existing and Proposed Structures and Responsibilities	103
Permanent, Enfranchised Organizations: Non-NATO and NATO	104
A Beginning — U.S. Examples	110
A Recommended Timetable	111
Chapter 8. <i>A New Spirit or a New Treaty?</i>	113
Possibilities Under the Present Treaty	113
Possibilities Under a Revised or New Treaty	114
The Way Ahead — or The Way to Retreat	116
<i>Appendices</i>	119
Appendix A — <i>Organization and Component Charts</i>	120
Appendix B — <i>NATO Military Agency for Standardization: Working Panels</i>	125
Appendix C — <i>Progress Report: CNAD Ad Hoc Study Group for a Possible Periodic Armaments Planning System (PAPS)</i>	126
Appendix D — <i>Report of the Subcommittee on Defense Cooperation, October 1979</i>	135
Appendix E — <i>U.S. Netherlands MOU on Reciprocal Defense Procurement</i>	151
Appendix F — <i>NATO Standardization and Interoperability: Handbook of Lessons Learned</i>	187
Appendix G — <i>Modes of Collaboration and an Assessment</i>	193
<i>Bibliography</i>	197
<i>Index</i>	223