

NORTH ATLANTIC TREATY ORGANIZATION



RESEARCH AND TECHNOLOGY ORGANIZATION

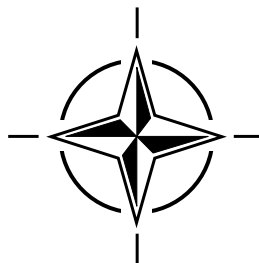
BP 25, 7 RUE ANCELLE, F-92201 NEUILLY-SUR-SEINE CEDEX, FRANCE

RTO MEETING PROCEEDINGS 68

The Impact of NATO/Multinational Military Missions on Health Care Management

(l'Impact des missions OTAN/militaires internationales sur la
gestion des soins de santé)

*Papers presented at the RTO Human Factors and Medicine Panel (HFM) Specialists' Meeting
held in Kiev, Ukraine, 4-6 September 2000.*



Published May 2001

Distribution and Availability on Back Cover

This page has been deliberately left blank



Page intentionnellement blanche

NORTH ATLANTIC TREATY ORGANIZATION



RESEARCH AND TECHNOLOGY ORGANIZATION

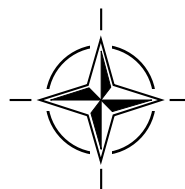
BP 25, 7 RUE ANCELLE, F-92201 NEUILLY-SUR-SEINE CEDEX, FRANCE

RTO MEETING PROCEEDINGS 68

The Impact of NATO/Multinational Military Missions on Health Care Management

(l'Impact des missions OTAN/militaires internationales sur la gestion des soins de santé)

Papers presented at the RTO Human Factors and Medicine Panel (HFM) Specialists' Meeting held in Kiev, Ukraine, 4-6 September 2000.



The Research and Technology Organization (RTO) of NATO

RTO is the single focus in NATO for Defence Research and Technology activities. Its mission is to conduct and promote cooperative research and information exchange. The objective is to support the development and effective use of national defence research and technology and to meet the military needs of the Alliance, to maintain a technological lead, and to provide advice to NATO and national decision makers. The RTO performs its mission with the support of an extensive network of national experts. It also ensures effective coordination with other NATO bodies involved in R&T activities.

RTO reports both to the Military Committee of NATO and to the Conference of National Armament Directors. It comprises a Research and Technology Board (RTB) as the highest level of national representation and the Research and Technology Agency (RTA), a dedicated staff with its headquarters in Neuilly, near Paris, France. In order to facilitate contacts with the military users and other NATO activities, a small part of the RTA staff is located in NATO Headquarters in Brussels. The Brussels staff also coordinates RTO's cooperation with nations in Middle and Eastern Europe, to which RTO attaches particular importance especially as working together in the field of research is one of the more promising areas of initial cooperation.

The total spectrum of R&T activities is covered by the following 7 bodies:

- AVT Applied Vehicle Technology Panel
- HFM Human Factors and Medicine Panel
- IST Information Systems Technology Panel
- NMSG NATO Modelling and Simulation Group
- SAS Studies, Analysis and Simulation Panel
- SCI Systems Concepts and Integration Panel
- SET Sensors and Electronics Technology Panel

These bodies are made up of national representatives as well as generally recognised 'world class' scientists. They also provide a communication link to military users and other NATO bodies. RTO's scientific and technological work is carried out by Technical Teams, created for specific activities and with a specific duration. Such Technical Teams can organise workshops, symposia, field trials, lecture series and training courses. An important function of these Technical Teams is to ensure the continuity of the expert networks.

RTO builds upon earlier cooperation in defence research and technology as set-up under the Advisory Group for Aerospace Research and Development (AGARD) and the Defence Research Group (DRG). AGARD and the DRG share common roots in that they were both established at the initiative of Dr Theodore von Kármán, a leading aerospace scientist, who early on recognised the importance of scientific support for the Allied Armed Forces. RTO is capitalising on these common roots in order to provide the Alliance and the NATO nations with a strong scientific and technological basis that will guarantee a solid base for the future.

The content of this publication has been reproduced directly from material supplied by RTO or the authors.

Published May 2001

Copyright © RTO/NATO 2001
All Rights Reserved

ISBN 92-837-1059-2



*Printed by St. Joseph Ottawa/Hull
(A St. Joseph Corporation Company)
45 Sacré-Cœur Blvd., Hull (Québec), Canada J8X 1C6*

The Impact of NATO/Multinational Military Missions on Health Care Management

(RTO MP-068 / HFM-051)

Executive Summary

The Human Factor and Medicine Panel (HFM) of the NATO Research and Technology Organization (RTO) held a Specialists' Meeting entitled "The Impact of NATO/Multinational Military Missions on Health Care Management" at the "Ukrainsky Dim" in Kiev, Ukraine, 4-6 September 2000.

The Meeting addressed the planning, policy, organization and management of armed forces medical support while they perform various missions at national, allied or joint levels. Participants discussed a wide range of issues: military personnel health monitoring and protection during the pre-deployment, deployment and post-deployment phases, military-medical standardization, combat trauma, diseases and non-battle injuries (DNBI), new concepts of medical evacuation, civil-military interaction in medical support, training of military-medical personnel, and research.

The Meeting discussed a number of topics that will benefit the military, including: principles of organization based on a single military medical doctrine, joint training, standardization, preventive medicine, command, control, communication, and computers, interaction of military medical staffs, psychological aspects of joint actions of multinational troops, Health Service Support (HSS) and medical evacuation of the sick and wounded during large-scale multinational military exercises, telemedicine in its application to multinational HSS, and interoperability in medical support.

The Meeting provided applicable recommendations with regard to the improvement of armed forces medical support, the extension of NATO and PfP military-medical interactions, as well as civil-military health care integration. The Meeting outlined prospective areas and directions for the further research, discussion and development:

1. It should be considered to establish a HFM Task Group for a review and comparative analysis of NATO and non-NATO (Ukraine, Russian) versions of Military Medical Doctrines, and for an evaluation of the experiences of all parties in medical support activities.
2. NATO standardisation activity might be extended to PfP countries through a joint evaluation of standards in medical care and in military-medical terminology.
3. Leading research institutes and military medical centers of NATO and PfP countries might be invited to submit proposals for military medical research co-operation in the areas mentioned above, and to develop selected joint international research programs based on these proposals.
4. Military medical personnel of PfP countries should participate more frequently in short and long-term training courses in NATO countries.
5. Possibilities should be explored of carrying out a joint NATO/PfP field exercise in Ukraine in order to evaluate the interaction of multinational military-medical services during peacekeeping missions.

L'Impact des missions OTAN/militaires internationales sur la gestion des soins de santé

(RTO MP-068 / HFM-051)

Synthèse

La commission sur les facteurs humains et la médecine (HFM) de l'Organisation pour la recherche et la technologie (RTO), a organisé une réunion de spécialistes sur « L'impact des missions OTAN/militaires internationales sur la gestion des soins de santé » au « Ukrainsky Dim » à Kiev, en Ukraine du 4 au 6 septembre 2000.

La réunion a eu pour objectif d'examiner la planification, la politique, l'organisation et la gestion du soutien médical assuré par les forces armées au cours de différentes missions exécutées au niveau national, allié ou interarmées. Les participants ont discuté d'un grand éventail de sujets : le contrôle et de la protection de la santé des personnels militaires pendant les phases de pré-déploiement, de déploiement et de post-déploiement, la normalisation médicale militaire, les traumatismes de combat et les malades et blessés hors combat (DNBI), les nouvelles perspectives pour l'évacuation sanitaire, l'interaction civil-militaire dans le soutien médical, l'entraînement du personnel médical militaire et la recherche.

L'atelier a examiné un certain nombre de sujets susceptibles d'intéresser les militaires, dont : les principes organisationnels, basés sur une doctrine médicale militaire unique; la formation interarmées, la standardisation; la médecine préventive; le commandement, contrôle et communications; l'informatique; les interactions entre les personnels médicaux militaires internationaux; les aspects psychologiques des actions interarmées faisant appel à des troupes multinationales; le support fourni par les services de santé (HSS) et l'évacuation sanitaire des malades et des blessés lors d'exercices militaires en vraie grandeur impliquant des troupes multinationales; le soutien médical d'exercices militaires multinationaux interarmées à grande échelle; la télémédecine dans toutes ses applications lors d'un HSS multinational, ainsi que l'interopérabilité du soutien médical.

La réunion a débouché sur des recommandations applicables dans les domaines du soutien médical des forces armées, du prolongement des interactions OTAN/PpP et de l'intégration des soins de santé médicaux militaires. La réunion a indiqué les principaux axes et les domaines prometteurs de recherche, de discussions et de développement, à savoir:

1. Il y a lieu de prendre en considération la création d'un groupe de travail HFM qui effectuerait un examen et une analyse comparative des versions OTAN et non-OTAN (Ukraine, Russie) des doctrines militaires médicales, ainsi qu'une évaluation de l'expérience de l'ensemble des participants dans le domaine des activités de soutien médical.
2. Les activités de normalisation de l'OTAN pourraient être étendues aux pays du PpP par le biais d'une évaluation conjointe des normes en matière de soins médicaux et de terminologie médicale militaire.
3. Les instituts de recherche et les centres médicaux militaires de premier rang de l'OTAN et des pays du PpP pourraient être invités à soumettre des propositions concernant la recherche médicale militaire en coopération dans les domaines précités, et à élaborer des programmes de recherche conjoints internationaux particuliers, sur la base de ces propositions.
4. Le personnel médical militaire des pays du PpP devrait participer plus activement aux stages de formation à court et à long terme organisés par les pays de l'OTAN.
5. Il y a lieu d'examiner la possibilité d'organiser un exercice sur le terrain conjoint OTAN/PpP en Ukraine afin d'évaluer l'interaction des services médicaux militaires internationaux lors des missions de maintien de la paix.

Contents

	Page
Executive Summary	iii
Synthèse	iv
Human Factors and Medicine Panel	vii
	Reference
Technical Evaluation Report by A. Sokhin	T
Keynote Report - Medical Support of Armed Forces of Ukraine: New Vision of Organizational Structure and Management by V. Ya. Bily	1
SESSION I: PLANNING AND CONCEPT OF ARMED FORCES MEDICAL SUPPORT	
NATO Medical Support to Crisis Response Operations - A Strategic View by L. Klein and M. Kasper	2
Keynote Report - Flexibility is the Key to Airpower, Medical Power is the Key to Operations Success: Lessons Learned from Flying Operations over the Balkans by W. Jertz	3
Rational Distribution and Use of Military-Medical Resources by M.C. Nikolay, N. Vovkodav and V.I. Varus	4
SESSION II: HEALTH SERVICE SUPPORT MANAGEMENT AT VARIOUS MISSIONS OF ARMED FORCES	
Pre-Deployment Medical Readiness Preparation by M. Kasper and L. Klein	5
System of Primary Health Care in Kiev Military-Medical Center by M.P. Bojchack and L.A. Holyk	6
Post-Deployment Phase Medical Status Monitoring Functions by V. Varus	7
The Program of Reforming the Public Health System of Ukraine and the Perspectives for its Realization by V. Moskalenko and V. Ponomarenko	8
SESSION III: SPECIAL ASPECTS OF TROOPS HEALTH SERVICE SUPPORT	
Deployment Phase Medical Readiness Support by M. Kasper and L. Klein	9
The Problem of the Pilot's Professional Health Restoration by A. Shakula, A. Pulik and L. Kuzina	10
Unified Principles, Requirements and Standards of Armed Forces Medical Support by A. Sokhin	11
Battle Trauma and DNBI by E. Rödigg	12

System of Training and Certification of Military-Medical Personnel in Ukraine Armed Forces	13
by V.V. Pasko	
Partnership in Ukraine Ministry of Health and Academy of Medical Sciences Scientific Direction of “Aerospace Medicine”	14
by V. Yatsenko	
SESSION IV: MEDICAL SUPPLY AND TECHNOLOGIES	
Perspectives of Telemedicine Development in Ukraine	15
by O. Ya. Mayorov, V.M. Ponomarenko, V.V. Kalnish and M.V. Olenin	
International Military Medical Standardization - Status and Prospects	16
by D.M. Lam	
Immunogenetic Approach to Prognosis of Military Specialists’ Health Status	17
by G. Afonina, V. Varys, V. Yatsenko, A. Bely and T. Bruzgina	
The Role of the Branch Unified Standards of Medical Technologies in Ukrainian Public Health System	18
by V.M. Ponomarenko, A.M. Nahorna and A.V. Stepanenko	
SESSION V: PRINCIPLES AND POLICY OF MEDICAL EVACUATION	
Medical Evacuation, History and Development—The Future in the Multinational Environment	19
by D.M. Lam	
Qualified Aeromedical Evacuation in the Extended Task Spectrum of National and International Military Missions	20
by E. Rödiger	
Experience in Organization of Urgent Medical Care in Large-Scale Accident Conditions at Nuclear Power Stations	21
by V. Bebeshko	

Human Factors and Medicine Panel

Chairman:

Dr M.C. WALKER

Director, Centre for Human Sciences
DERA
F138 Building - Room 204
Farnborough, Hants GU14 OLX
United Kingdom

Co-Chairman:

Col. W. C. M. TIELEMANS, MD

RNLAF/SGO
P.O. Box 20703
Binckhorstlaan, 135
2500 ES The Hague
The Netherlands

PROGRAMME COMMITTEE

Chairmen

Col.Dr Med. Erich RÖDIG
Generalarzt der Luftwaffe
Fachdienstliche Abteilung II
P O Box 902500, BW 356
Franzhauschenstr. 38
53797 Lohmar-Heide - Germany
Tel: +49 22 41 95 80 236
Fax: +49 22 41 388 036
E-mail: recce52@aol.com

Prof. Alexander SOKHIN
M.D., Ph D., Deputy Director
RIMM of Ukraine Armed Forces
One, 11th Line Str, Irpen
08200, Kievskaya Region
Ukraine
Tel: +38 044 97 93 339
Fax: + 38 044 97 93 348
E-mail: sokhin@ukrpost.net

PANEL EXECUTIVE

Dr C. WIENTJES

BP 25 - 7, Rue Ancelle
92201 Neuilly-sur-Seine, France
Tel: +33 1 55 61 22 60
Fax: +33 1 55 61 22 98

E-mail: wientjesc@rta.nato.int or pelatd@rta.nato.int

This page has been deliberately left blank



Page intentionnellement blanche

REPORT DOCUMENTATION PAGE

1. Recipient's Reference	2. Originator's References RTO-MP-068 AC/323(HFM-051)TP/35	3. Further Reference ISBN 92-837-1059-2	4. Security Classification of Document UNCLASSIFIED/ UNLIMITED
5. Originator Research and Technology Organization North Atlantic Treaty Organization BP 25, 7 rue Ancelle, F-92201 Neuilly-sur-Seine Cedex, France			
6. Title The Impact of NATO/Multinational Military Missions on Health Care Management			
7. Presented at/sponsored by the Specialists' Meeting of the RTO Human Factors and Medicine Panel (HFM) held in Kiev, Ukraine, 4-6 September 2000.			
8. Author(s)/Editor(s) Multiple			9. Date May 2001
10. Author's/Editor's Address Multiple			11. Pages 140
12. Distribution Statement There are no restrictions on the distribution of this document. Information about the availability of this and other RTO unclassified publications is given on the back cover.			
13. Keywords/Descriptors			
<ul style="list-style-type: none"> Medical services Health Military medicine Multilateral forces Military operations NATO forces International cooperation Military planning 	<ul style="list-style-type: none"> Standardization Interoperability Military doctrine Aeromedical evacuating Injuries Emergencies Emergency response Public health 	<ul style="list-style-type: none"> OOTW (Operations Other Than War) Health care management Telemedicine Combat stress Trauma 	
14. Abstract			
<p>The proceedings include the Technical Evaluation Report, two key-note addresses and solicited papers of the Specialists' meeting sponsored by the NATO Human Factors and Medicine Panel and held at the "Ukrainisky Dim" in Kiev, Ukraine, 4-6 September 2000.</p> <p>Recent major events across the world and at national levels have radically altered the global picture and have reshaped the NATO strategy from one aimed at resolving international conflict to one predominantly aimed at missions other than war (peacekeeping, humanitarian, disaster relief, etc.). Most of these missions are performed by multinational forces, which requires the cooperation of all military services including the medical support systems.</p> <p>The new objectives require radical changes in the organizational structure, management, and supply of national and allied military health systems.</p> <p>The purpose of this Specialists' Meeting was to exchange information and experience on Health Service Support (HSS) of multinational troops, to review the development of interoperable forms of multinational HSS in the field, to examine the lessons learned during actual operational deployment of multinational medical facilities, and to discuss the interplay between multinational, alliance/NGO, and civil/military operations in coping with disasters which require alliance or EAPC assistance.</p>			

This page has been deliberately left blank



Page intentionnellement blanche



RESEARCH AND TECHNOLOGY ORGANIZATION

BP 25 • 7 RUE ANCELLE

F-92201 NEUILLY-SUR-SEINE CEDEX • FRANCE

Télécopie 0(1)55.61.22.99 • E-mail mailbox@rta.nato.int

DIFFUSION DES PUBLICATIONS

RTO NON CLASSIFIEES

L'Organisation pour la recherche et la technologie de l'OTAN (RTO), détient un stock limité de certaines de ses publications récentes, ainsi que de celles de l'ancien AGARD (Groupe consultatif pour la recherche et les réalisations aérospatiales de l'OTAN). Celles-ci pourront éventuellement être obtenues sous forme de copie papier. Pour de plus amples renseignements concernant l'achat de ces ouvrages, adressez-vous par lettre ou par télécopie à l'adresse indiquée ci-dessus. Veuillez ne pas téléphoner.

Des exemplaires supplémentaires peuvent parfois être obtenus auprès des centres nationaux de distribution indiqués ci-dessous. Si vous souhaitez recevoir toutes les publications de la RTO, ou simplement celles qui concernent certains Panels, vous pouvez demander d'être inclus sur la liste d'envoi de l'un de ces centres.

Les publications de la RTO et de l'AGARD sont en vente auprès des agences de vente indiquées ci-dessous, sous forme de photocopie ou de microfiche. Certains originaux peuvent également être obtenus auprès de CASI.

CENTRES DE DIFFUSION NATIONAUX

ALLEMAGNE

Streitkräfteamt / Abteilung III
Fachinformationszentrum der
Bundeswehr, (FIZBw)
Friedrich-Ebert-Allee 34
D-53113 Bonn

BELGIQUE

Coordinateur RTO - VSL/RTO
Etat-Major de la Force Aérienne
Quartier Reine Elisabeth
Rue d'Evère, B-1140 Bruxelles

CANADA

Directeur - Recherche et développement -
Communications et gestion de
l'information - DRDCGI 3
Ministère de la Défense nationale
Ottawa, Ontario K1A 0K2

DANEMARK

Danish Defence Research Establishment
Ryvangs Allé 1, P.O. Box 2715
DK-2100 Copenhagen Ø

ESPAGNE

INTA (RTO/AGARD Publications)
Carretera de Torrejón a Ajalvir, Pk.4
28850 Torrejón de Ardoz - Madrid

ETATS-UNIS

NASA Center for AeroSpace
Information (CASI)
Parkway Center
7121 Standard Drive
Hanover, MD 21076-1320

FRANCE

O.N.E.R.A. (ISP)
29, Avenue de la Division Leclerc
BP 72, 92322 Châtillon Cedex

GRECE (Correspondant)

Hellenic Ministry of National
Defence
Defence Industry Research &
Technology General Directorate
Technological R&D Directorate
D.Soutsou 40, GR-11521, Athens

HONGRIE

Department for Scientific
Analysis
Institute of Military Technology
Ministry of Defence
H-1525 Budapest P O Box 26

ISLANDE

Director of Aviation
c/o Flugrad
Reykjavik

ITALIE

Centro di Documentazione
Tecnico-Scientifica della Difesa
Via XX Settembre 123a
00187 Roma

LUXEMBOURG

Voir Belgique

NORVEGE

Norwegian Defence Research
Establishment
Attn: Biblioteket
P.O. Box 25, NO-2007 Kjeller

PAYS-BAS

NDRCC
DGM/DWOO
P.O. Box 20701
2500 ES Den Haag

POLOGNE

Chief of International Cooperation
Division
Research & Development Department
218 Niepodleglosci Av.
00-911 Warsaw

PORTUGAL

Estado Maior da Força Aérea
SDFA - Centro de Documentação
Alfragide
P-2720 Amadora

REPUBLIQUE TCHEQUE

Distribuční a informační středisko R&T
VTÚL a PVO Praha
Mladoboleslavská ul.
197 06 Praha 9-Kbely AFB

ROYAUME-UNI

Defence Research Information Centre
Kentigern House
65 Brown Street
Glasgow G2 8EX

TURQUIE

Millî Savunma Başkanlığı (MSB)
ARGE Dairesi Başkanlığı (MSB)
06650 Bakanlıklar - Ankara

AGENCES DE VENTE

NASA Center for AeroSpace
Information (CASI)

Parkway Center
7121 Standard Drive
Hanover, MD 21076-1320
Etats-Unis

The British Library Document
Supply Centre

Boston Spa, Wetherby
West Yorkshire LS23 7BQ
Royaume-Uni

Canada Institute for Scientific and
Technical Information (CISTI)

National Research Council
Document Delivery
Montreal Road, Building M-55
Ottawa K1A 0S2, Canada

Les demandes de documents RTO ou AGARD doivent comporter la dénomination "RTO" ou "AGARD" selon le cas, suivie du numéro de série (par exemple AGARD-AG-315). Des informations analogues, telles que le titre et la date de publication sont souhaitables. Des références bibliographiques complètes ainsi que des résumés des publications RTO et AGARD figurent dans les journaux suivants:

Scientific and Technical Aerospace Reports (STAR)

STAR peut être consulté en ligne au localisateur de
ressources uniformes (URL) suivant:

<http://www.sti.nasa.gov/Pubs/star/Star.html>

STAR est édité par CASI dans le cadre du programme

NASA d'information scientifique et technique (STI)

STI Program Office, MS 157A

NASA Langley Research Center

Hampton, Virginia 23681-0001

Etats-Unis

Government Reports Announcements & Index (GRA&I)

publié par le National Technical Information Service
Springfield

Virginia 2216

Etats-Unis

(accessible également en mode interactif dans la base de
données bibliographiques en ligne du NTIS, et sur CD-ROM)



Imprimé par St-Joseph Ottawa/Hull
(Membre de la Corporation St-Joseph)

45, boul. Sacré-Cœur, Hull (Québec), Canada J8X 1C6



RESEARCH AND TECHNOLOGY ORGANIZATION

BP 25 • 7 RUE ANCELLE

F-92201 NEUILLY-SUR-SEINE CEDEX • FRANCE

Telefax 0(1)55.61.22.99 • E-mail mailbox@rta.nato.int

DISTRIBUTION OF UNCLASSIFIED

RTO PUBLICATIONS

NATO's Research and Technology Organization (RTO) holds limited quantities of some of its recent publications and those of the former AGARD (Advisory Group for Aerospace Research & Development of NATO), and these may be available for purchase in hard copy form. For more information, write or send a telefax to the address given above. **Please do not telephone.**

Further copies are sometimes available from the National Distribution Centres listed below. If you wish to receive all RTO publications, or just those relating to one or more specific RTO Panels, they may be willing to include you (or your organisation) in their distribution.

RTO and AGARD publications may be purchased from the Sales Agencies listed below, in photocopy or microfiche form. Original copies of some publications may be available from CASI.

NATIONAL DISTRIBUTION CENTRES

BELGIUM

Coordinateur RTO - VSL/RTO
Etat-Major de la Force Aérienne
Quartier Reine Elisabeth
Rue d'Evère, B-1140 Bruxelles

CANADA

Director Research & Development
Communications & Information
Management - DRDCIM 3
Dept of National Defence
Ottawa, Ontario K1A 0K2

CZECH REPUBLIC

Distribuční a informační středisko R&T
VTÚL a PVO Praha
Mladoboleslavská ul.
197 06 Praha 9-Kbely AFB

DENMARK

Danish Defence Research
Establishment
Ryvangs Allé 1, P.O. Box 2715
DK-2100 Copenhagen Ø

FRANCE

O.N.E.R.A. (ISP)
29 Avenue de la Division Leclerc
BP 72, 92322 Châtillon Cedex

GERMANY

Streitkräfteamt / Abteilung III
Fachinformationszentrum der
Bundeswehr, (FIZBw)
Friedrich-Ebert-Allee 34
D-53113 Bonn

GREECE (Point of Contact)

Hellenic Ministry of National
Defence
Defence Industry Research &
Technology General Directorate
Technological R&D Directorate
D.Soutsou 40, GR-11521, Athens

HUNGARY

Department for Scientific
Analysis
Institute of Military Technology
Ministry of Defence
H-1525 Budapest P O Box 26

ICELAND

Director of Aviation
c/o Flugrad
Reykjavik

ITALY

Centro di Documentazione
Tecnico-Scientifica della Difesa
Via XX Settembre 123a
00187 Roma

LUXEMBOURG

See Belgium

NETHERLANDS

NDRCC
DGM/DWOO
P.O. Box 20701
2500 ES Den Haag

NORWAY

Norwegian Defence Research
Establishment
Attn: Biblioteket
P.O. Box 25, NO-2007 Kjeller

POLAND

Chief of International Cooperation
Division
Research & Development
Department
218 Niepodleglosci Av.
00-911 Warsaw

PORTUGAL

Estado Maior da Força Aérea
SDFA - Centro de Documentação
Alfragide
P-2720 Amadora

SPAIN

INTA (RTO/AGARD Publications)
Carretera de Torrejón a Ajalvir, Pk.4
28850 Torrejón de Ardoz - Madrid

TURKEY

Millî Savunma Başkanlığı (MSB)
ARGE Dairesi Başkanlığı (MSB)
06650 Bakanlıklar - Ankara

UNITED KINGDOM

Defence Research Information
Centre
Kentigern House
65 Brown Street
Glasgow G2 8EX

UNITED STATES

NASA Center for AeroSpace
Information (CASI)
Parkway Center
7121 Standard Drive
Hanover, MD 21076-1320

SALES AGENCIES

NASA Center for AeroSpace
Information (CASI)

Parkway Center
7121 Standard Drive
Hanover, MD 21076-1320
United States

The British Library Document
Supply Centre

Boston Spa, Wetherby
West Yorkshire LS23 7BQ
United Kingdom

Canada Institute for Scientific and
Technical Information (CISTI)

National Research Council
Document Delivery
Montreal Road, Building M-55
Ottawa K1A 0S2, Canada

Requests for RTO or AGARD documents should include the word 'RTO' or 'AGARD', as appropriate, followed by the serial number (for example AGARD-AG-315). Collateral information such as title and publication date is desirable. Full bibliographical references and abstracts of RTO and AGARD publications are given in the following journals:

Scientific and Technical Aerospace Reports (STAR)

STAR is available on-line at the following uniform resource locator:

<http://www.sti.nasa.gov/Pubs/star/Star.html>

STAR is published by CASI for the NASA Scientific and Technical Information (STI) Program
STI Program Office, MS 157A
NASA Langley Research Center
Hampton, Virginia 23681-0001
United States

Government Reports Announcements & Index (GRA&I)

published by the National Technical Information Service
Springfield
Virginia 22161
United States
(also available online in the NTIS Bibliographic Database or on CD-ROM)



Printed by St. Joseph Ottawa/Hull
(A St. Joseph Corporation Company)
45 Sacré-Cœur Blvd., Hull (Québec), Canada J8X 1C6