MAINTAINING MILITARY READINESS BY MANAGING OZONE DEPLETING SUBSTANCES

Guidelines for armed forces in developing countries

United Nations Environment Programme
Division of Technology, Industry and Economics
OzonAction Programme

Multilateral Fund for the
Implementation of the
Montreal Protocol

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Table of Contents

Foreword

'With the first control measure coming into force in 1999 for Article 5 Parties, it is important that military organizations in these countries identify their ODS uses and begin planning their transition to alternatives. There is a wealth of experience in non-Article 5 Parties on specific military uses and alternatives which countries operating under Article 5 can call upon in order to simplify the transition.'

1998 Report of the UNEP Technology and Economic Assessment Panel

We should not seek to preserve national security through the deployment and maintenance of armed forces at the expense of the environment. Indeed, environment and security interests are interrelated and should be mutually supportive.

In the last few decades, military organizations throughout the world have become increasingly aware of the impact of their operations on the local, regional, and global environment. Environmental management has been integrated into the operations and policies of armed services worldwide, and in many countries the armed forces have assumed a leadership role in specific areas of environmental protection. Although there are many reasons for this 'greening' of the armed forces—improving the health, safety, and well-being of military personnel and the civilian communities among whom they live; saving costs by using energy and materials more efficiently; reducing waste-management burdens; complying with national, regional, or international regulations and policies, and improving the public image of the armed forces—perhaps the most important factor has been that environmental conditions affect military readiness and hence national security.

One environmental issue that can impact on military readiness is the need to protect the stratospheric ozone layer from the damaging effects of ozone depleting substances (ODS). Widely used in both military and civilian applications, these man-made chemicals include chlorofluorocarbons (CFCs), halons, carbon tetrachloride, methyl chloroform, hydrochlorofluorocarbons (HCFCs), hydrobromofluorocarbons (HBFCs), and methyl bromide. Although they are used in hundreds of applications ranging from refrigeration and air-conditioning to firefighting, component cleaning, and medical sterilants, the production and use of ODS is being phased out worldwide.

Is your country considered an Article 5 Party?

The countries listed on page 49 are currently considered as operating under Article 5 of the Montreal Protocol.

Following scientific proof that these substances deplete the stratosphere (the upper atmosphere that protects human, animal, and plant life from the damaging effects of ultraviolet radiation), nations concerned about this potential crisis signed the Montreal Protocol on Substances that Deplete the Ozone Layer in September 1987. This landmark global environmental treaty established a timetable for the phase-out of ODS and established a Multilateral Fund to provide technical and financial assistance to developing countries (known as Article 5 countries) to enable them to comply with the terms of the Protocol.

The armed forces in developed countries quickly discovered that virtually every weapons and support system in their arsenal used ODS—in refrigeration, for fire protection, as solvents, or to perform some other vital function. Since many weapons and support systems rely on ODS and cannot function effectively without them, the use of these chemicals is directly linked to military readiness. Accordingly, armed forces must attach a high priority to ensuring that their ODS use is properly managed and that the transition to alternatives under the Montreal Protocol is a smooth one. Many armed forces may, however, be unaware of their government's commitments under the Protocol and that, beginning in 1999, the quantity of ODS availalbe will be severely restricted.

Developed as part of UNEP's Work Programme under the Multilateral Fund for the Implementation of the Montreal Protocol, this guide is designed for members of the armed forces in Article 5 countries who are responsible for operations, facilities, and/or equipment that relies on ODS. It is targeted at personnel involved in environmental compliance/protection issues, as well as operation chiefs and managers whose responsibilities include design, production, operation and maintenance of weapon systems, support systems, and facilities using ODS. Based on the first-hand experience of, and lessons learned by, armed forces in developed countries, the guide is intended to assist armed forces with establishing and implementing their own ODS management programmes in line with their national obligations under the Montreal Protocol.

Both this document and many other information resources related to ODS phase-out are available on the OzonAction Programme's web site: http://www.uneptie.org/ozonaction.html

The information in this guide was compiled from interviews with members of armed forces responsible for implementing programmes that comply with the Montreal Protocol. Additional information was obtained from military organizations taking part in a series of three international workshops on the role of the armed forces in implementing the Montreal Protocol (see Annex 2 for more details). Contributors include military organizations in NATO and other European countries, and countries with economies in transition (CEITs), as well as Article 5 countries in Africa, Asia, the Pacific region, the Indian Ocean, and South and Central America.

UNEP hopes that this guide will help armed forces organizations in Article 5 countries to undertake a safe and orderly phase-out of ODS without prejudice to their operational readiness.

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How to use these guidelines

There is no single 'right way' to manage military ODS uses. In every country, the armed forces will have to develop an appropriate response that takes into consideration their own particular circumstances. However, certain common critical considerations were encountered by those armed forces in developed countries that successfully met the deadlines set down under the Montreal Protocol, and these can be incorporated into your country's forward planning. This guide presents these common considerations as a series of steps which, once completed, will result in a valid military ODS management programme that will produce a successful and orderly transition away from ODS and towards the adoption of acceptable alternatives.

The armed forces in developed countries have already implemented ODS management programmes, and now operate without recourse to fresh ODS production. It is, then, possible to manage this transition. Those who have done so are in possession of a tremendous amount of knowledge and experience—including the lessons they learned the hard way, the mistakes they made, and the simple solutions they came up with only after they had invested a great deal of time and money in a search for more complex ones.

It is also important to emphasize that not all military ODS uses have been phased out in developed countries, and that having a successful management programme in place is not the same thing as ceasing to use ODS altogether. Small but important ODS needs remain and these must be met through careful management, recycling, and re-use of existing stocks. The needs that remain in developed countries are currently being met from existing ODS reserves. To manage those continuing needs, a number of countries have set up and now run what they call military ODS 'banks' or 'reserves'. These consist of controlled supplies of ODS used to support the remaining mission-critical military uses for which no suitable alternatives are currently available.

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