

---

The cover graphic is based on an ancient Egyptian hieroglyph representing the all-seeing eye of the powerful sky god, Horus. Segments of this "eye in the sky" became hieroglyphic signs for measuring fractions in ancient Egypt. Intriguingly, however, the sum of the physical segments adds up to only 63/64 and, thus, never reaches the equivalent of the whole, or perfection. Similarly, verification is unlikely to be perfect.

Today, a core element in the multilateral arms control verification process is likely to be the unintrusive "eye in the sky," or space-based remote sensing system. These space-based techniques will have to be supplemented by a package of other methods of verification such as airborne and ground-based sensors as well as some form of on-site inspection and observations. All these physical techniques add together, just as the fractions of the eye of Horus do, to form the "eye" of verification. Physical verification, however, will not necessarily be conclusive and there is likely to remain a degree of uncertainty in the process. Adequate and effective verification, therefore, will still require the additional, non-physical, element of judgement, represented by the unseen fraction of the eye of Horus.

#### Arms Control Verification Occasional Papers

Arms Control Verification Occasional Papers are issued periodically by the Arms Control and Disarmament Division of the Department of External Affairs. Their purpose is to disseminate the results of selected independent research undertaken for the Department of External Affairs as part of ongoing work by the Department in this area.

The views expressed in these reports are those of the authors and do not necessarily represent those of the Department of External Affairs or of the Government of Canada.

Department of External Affairs  
Cat. No. E54-8/3 1989E  
ISBN 0-662-16961-1  
ISSN 0840-772X

July 1989

---