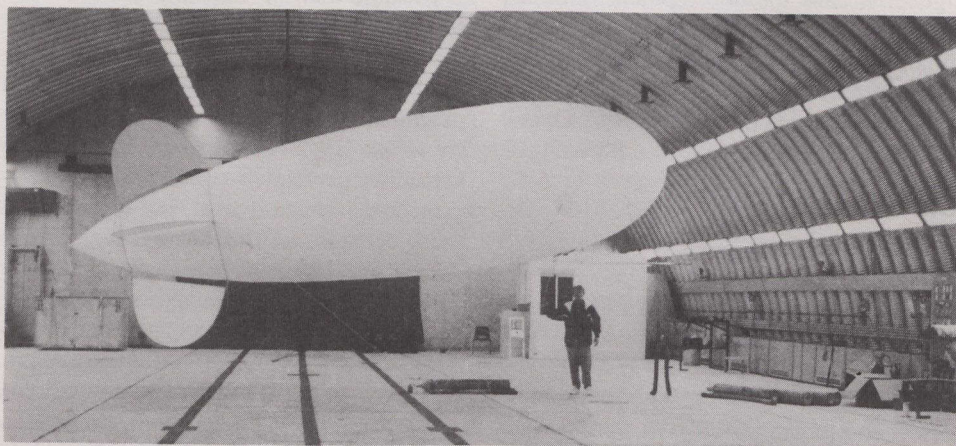


## Acronyms

ACD — arms control and disarmament  
 BCDRC — Biological and Chemical  
 Defence Review Committee  
 BTWC — Biological and Toxin  
 Weapons Convention  
 BW — biological weapons  
 CBM — confidence-building measure  
 CD — Conference on Disarmament  
 CF(B) — Canadian Forces (Base)  
 CFE — Conventional Armed Forces in  
 Europe  
 CSBM — confidence- and security-  
 building measure  
 CSCE — Conference on Security and  
 Cooperation in Europe  
 DND — Department of National  
 Defence  
 DRES — Defence Research Establish-  
 ment Suffield  
 EAITC — External Affairs and Interna-  
 tional Trade Canada  
 EC — European Community  
 EIPA — Export and Import Permits Act  
 G7 — Group of Seven leading in-  
 dustrialized countries  
 IAEA — International Atomic Energy  
 Agency  
 ICBM — intercontinental ballistic mis-  
 sile  
 IOZOP — Indian Ocean as a Zone of  
 Peace  
 MTCR — Missile Technology Control  
 Regime  
 NATO — North Atlantic Treaty Or-  
 ganization  
 NPT — Treaty on the Non-Proliferation  
 of Nuclear Weapons  
 OAS — Organization of American  
 States  
 PDMA — [Agreement on the] Preven-  
 tion of Dangerous Military Activities  
 SLBM — sea-launched ballistic missile  
 SSEA — Secretary of State for External  
 Affairs  
 START — Strategic Arms Reduction  
 Talks/Treaty  
 TLE — treaty-limited equipment  
 UNDC — UN Disarmament Commis-  
 sion  
 UNGA — UN General Assembly  
 UNSCOM — UN Special Commission  
 WEU — Western European Union ■

## Verification from a New Perspective



The assembled aerostat.

EAITC's Verification Research Unit has been investigating the use of an air-  
 borne, helium-filled blimp system as an arms control verification tool. The Unit has  
 contracted Aeroblimp Incorporated, a Waterloo-based manufacturer and supplier  
 of portable blimps or aerostats, to demonstrate an overhead surveillance system  
 using a tethered aerostat as the platform.

During the past year, the Verification Research Unit conducted three evaluation  
 tests of this innovative monitoring system: one at Canadian Forces Base (CFB)  
 Petawawa, one at CFB Lahr in Germany and one at CFB Uplands in Ottawa. The  
 main purpose of the tests was to evaluate an overhead imaging system in support of  
 on-site inspections for arms control verification operations. Although the CFE  
 Treaty does not presently allow for overhead monitoring, this system could be used  
 for portal perimeter and traffic monitoring, and for area and object-of-verification  
 surveillance. Other potential applications include drug enforcement, peacekeeping  
 and search-and-rescue operations.

The aerostat is approximately 11 metres long and, when fully inflated with helium,  
 is capable of supporting a 25 kilogram payload. For demonstration purposes, a  
 35 mm camera was coupled to a high resolution video camera and operated from a  
 height of 37 metres. Both cameras can be operated from the ground. By manipu-  
 lation of a joystick, high-resolution 35 mm images were obtained using the video  
 camera and its zoom capability as a viewing and directional guide. The tests  
 demonstrated that the imaging camera system could adequately monitor a radius of  
 approximately three kilometres (or 28 square kilometres) on a continuous basis. ■



At right: photo taken from aerostat during  
 test at CFB Lahr. Aircraft are Belgian Air  
 Force F-16 fighter jets.

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