

EW

CONTENTS



ELECTRONIC WARFARE

STAFF

Editor & Publisher
Harry F. Eustace

Managing Editor
Fred D. Byers, Jr.

Contributing Editors
Dan Graves
Richard R. Keenly
Robert H. Rector

Copy Editors
Roy C. Martens
Howard Fenton

Production
Dolores McKendry, Art Director
Kim Vogel, Art Assistant
William Crispin, Production

Circulation Manager
Phyllis Baker

Fulfillment Manager
Kathy Gheleta

EDITORIAL REVIEW BOARD

Dr. J. D. Bruce
Theodore S. Coberly
Lynwood A. Cosby
Harry Davis
William E. W. Howe
Dr. Bill B. May
Dr. Frank A. Olson
Claud Pinson
Walter Portune
Dr. Joseph A. Saloom
Kenneth R. Schoniger

AOC MAGAZINE REPRESENTATIVE

Ron Brown

Editorial Headquarters
EW Communications, Inc.
3921 East Bayshore Road
Palo Alto, California 94303
Tel. (415) 961-1300
TWX 910-379-6584
CABLES: MICROWAVE PALO ALTO

Bureau
Temple House, 34-36 High Street
Seven Oaks, Kent TN13 1JG
England
Tel: Seven Oaks 59533/4
Roger C. Marriott, Managing Director

ADVERTISING SALES OFFICES

Glen Cove, L.I., NY 11542
Anthony Yaconetti
13 Reynolds Road, (516) 671-8756

Palo Alto, CA 94303
Phil Du Vall, Dave Rausch
3921 East Bayshore Road, (415) 961-1300

President, Weber Publications, Inc.
John M. Weber

NEWS & FEATURES

- 13 Washington Report
- 22 International Report
- 27 Guest Editorial: The Army Electronic Warfare Board,
Lt. Col. Thomas P. Gorman, USA

SPECIAL REPORT: NATO EW

- 29 NATO: An Important Conventional Capability
- 31 EUCOM: Focal Point for NATO Contact
- 33 U.S. MAAG's and DAO's: Who's Who
- 41 The Ins and Outs of Export Licensing
- 49 Swedish Air Force Introduces New Day/Night Recon Pod
- 50 ALQ-123 Shown by British
- 55 Belgian ECM Retrofit Seen Key to New Procurements
- 56 Competitors Shown in European LWF Competition
- 59 NATO National Capabilities Seen Expanding
- 73 International AOC: de Ooievaar Club of the Netherlands
- 81 Loral Executive Sees Independent Attitudes on EW in NATO
- 86 New French Receiver Developed

TECHNOLOGY

- 91 EZF/EZFU—The Monitoring and Analyzing System from 6 kHz to 2.7 GHz, *Ulrich L. Rohde, Rohde & Schwarz, Fairfield, New Jersey*
- 100 Unique Broadband High Pass Filter, *Chet Pedersen, Martin Marietta Corporation, Denver, Colorado*
- 103 The Design and Production of Reliable EW Equipments, *J. I. Belfer & J. C. Forrest, ITT Avionics Division, Nutley, New Jersey*
- 108 A Coherent Memory Using Digital Storage: "The Loopless Memory Loop", *Sheldon C. Spector, Tasker Systems/Division of Whittaker, Chatsworth, California*
- 112 Maintenance of EW Transmission Lines, *Jack Newitt, Sperry Microwave Electronics, Clearwater, Florida*

DEPARTMENTS

- 48 Editorial Feedback
- 106 AOC News
- 117 Operator 750
- 120 Graves' Gallery
- 122 President's Message

Cover. USAF's award of a \$417,904,758 fixed-price incentive award to General Dynamics for the new F-16, puts the new airplane into the European Air Combat Fighter competition as the U.S. entry. See International Report for more details.

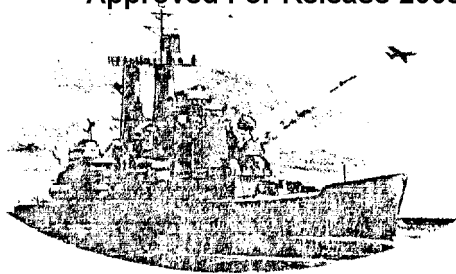
Electronic Warfare magazine is published bi-monthly by EW Communications, Inc.—a subsidiary of Weber Publications, Inc.—for the Association of Old Crowns as their official publication. Circulation to AOC membership and other paid subscribers by EW Communications, Inc. Subscription rates: \$15.00 per year in the US and Canada, \$25.00 per year international surface; \$35.00 per year international air mail. Single copies and back issues (if available), \$5.00 each.

Editorial: The articles and editorials appearing in Electronic Warfare do not represent the official AOC position except for the Official Notices appearing in the AOC News Section or unless specifically identified as an AOC official position. Publisher assumes no responsibility for unsolicited material. Authors are responsible for assuring that articles are properly released for classification and proprietary information.

STAT

Approved For Release 2005/01/12 : CIA-RDP88-01315R000400160009-5

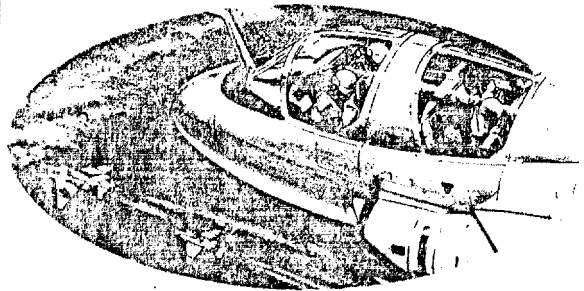
Approved For Release 2005/01/12 : CIA-RDP88-01315R000400160009-5



When it has to be as



real as the real thing

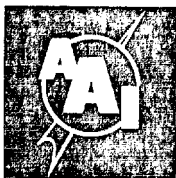


rely on AAI simulation

TOTAL REALISM is an AAI specialty. We have what it takes. We have the people capability. We have the advanced technical knowledge. And we have the most extensive, up-to-date bank of foreign and domestic signals. The complete ability to create design and build total realism into computerized stimulation devices has made AAI a leader in electronic warfare training for over 20 years.



*We help young crows
become old crows.*



CORPORATION

P.O. Box 6767
Baltimore, Maryland 21204
(301) 666-1400

Association of Old Crows

SENIOR ADVISORY BOARD

Herbert D. Bennington
Burton P. Brown
Harry Davis
John W. Dixon
Lincoln R. Hayes
Dr. H. Richard Johnson
Joseph Kearny
Dr. Marvin D. Lasser
Dr. Leon Reibman
Royden C. Sanders, Jr.
Allan D. Simon

President

Bland B. Hyatt, Jr.

Executive Vice President

Charles V. Hocy

Secretary

Col. John Marks

Treasurer

Maj. Warren W. Cook

Executive Secretary

Bobby Jo Rowe

Regional Vice President

Eastern

Capt. E. L. Hurd,

Central

Joe Rac

Southern

Marshall Brown

Western

Lt. Col. Donald W. Rich

Pacific

Ronald G. Brown

International

Col. (Ret.) Olin E. McFolin

Directors

Warren G Austin

Col. Donald Christofferson

William S. Crawford

RADM. Julian Lake

Dr. Allen R. Matthews

Claud Pinson

Harry F. Smith

Adam P. Vogel, Jr.

Bernie E. Zettl

Business Address: EW Communications, Inc., 3921 E. Bayshore Road, Palo Alto, CA 94303. All correspondence, subscriptions, editorial material, and advertising material should be sent to the above address.

Change of Address: Send old and new address (including mailing label from this magazine) with Zip Code numbers to Association of Old Crows, 2361 S. Jefferson Davis Hwy., Suite 606, Arlington, VA 22202.

Postmaster please send Form 3579 to the same address.

Electronic Warfare, January/February 1975. Volume 7, Number 1. Published bi-monthly by EW Communications, Inc., 3921 East Bayshore Road, Palo Alto, CA 94303 USA. Copyright 1975.

Controlled Circulation: Postage paid at Los Angeles, California.

Association of Old Crows

Policy Resolutions For 1976

The Board of Directors of the Association of Old Crows has formulated and approved six policy resolutions for 1976. These resolutions are intended to focus attention on areas which are believed to be vital to the National Defense. After careful analysis and review of the National Defense posture, these guidelines were evolved by the members of the Board of Directors. They are designed to support the AOC policy objectives in a mutual endeavor of the DOD, Congress and Industry to advance the Electronic Warfare capability of the United States.

I. NATIONAL DEFENSE POSTURE

WHEREAS, the Soviets have improved and are continuing to improve their Armed Forces in both numbers and weapon systems; and

WHEREAS, the Soviets continue to expand their influence in the third world countries by supplying arms and assistance; and

WHEREAS, the success in future conflicts will, in a large measure, depend on the outcome of the electronic battle;

NOW, THEREFORE, BE IT RESOLVED that the Association of Old Crows (AOC) joins the President and urges the Department of Defense (DOD), Congress and the Nation to support a strong national defense posture by supporting the force structure of the United States in all aspects and equipping this force structure with the Weapons and Electronic Warfare (EW) systems required to provide deterrence to aggression throughout the world.

II. RESEARCH AND DEVELOPMENT (R&D)

WHEREAS, future Tactical and Strategic defensive capabilities of the Armed Forces can be significantly improved by providing advanced Electronic and Electro-Optical countermeasures systems; and

WHEREAS, current and future improvements in enemy radar, communications and optical systems will result in decreased survivability of our weapons systems; and

WHEREAS, the current practice of holding a "level of effort" in the R&D area year after year results in an ever decreasing amount of current technology available for utilization in operational hardware; and

WHEREAS, an increasing percentage of the "level of effort" R&D funding is being used to cover the increased costs of test and evaluation of new equipments;

NOW, THEREFORE, BE IT RESOLVED that the AOC urges DOD to increase the EW R&D effort to the level required to permit future operationally deployed systems to match or exceed the enemy state-of-the-art threat; and

BE IT FURTHER RESOLVED that the AOC urges the Congress to support the above increased R&D effort. If the increased effort is not requested by DOD, the Congress should review in detail the need for additional EW R&D efforts.

III. EW EDUCATION

WHEREAS, EW Technology is a unique specialty of electromagnetics involving a broad frequency spectrum; and

WHEREAS, the EW posture of the United States Forces is directly related to the combat effectiveness of these forces; and

WHEREAS, the United States EW posture is directly related to the management decisions made at all levels of the DOD, the Administration and Congress; and

WHEREAS, the better informed the decision makers are concerning the role of Electronic Warfare the more perceptive the decisions will be;

NOW, THEREFORE, BE IT RESOLVED that the AOC urges DOD to establish a comprehensive EW education program at the Congressional Committee and individual member level, at the military/civilian student level, and

BE IT FURTHER RESOLVED that the AOC will support and assist the DOD in every way possible to assure the effectiveness of this education.

IV. MILITARY-INDUSTRIAL TEAM

WHEREAS, the United States Industry is a necessary and vital part of the National Defense of this country; and

WHEREAS, the Military-Industrial Team has been able to produce the goods and services in the time and quantity needed to defeat the Nations enemies; and

WHEREAS, the Armed Services produce no equipment but must rely on United States industry to provide the goods necessary to maintain a strong and viable national defense posture; and

WHEREAS, a close relationship and continuous professional liaison must exist between user and supplier in our free enterprise system to assure that the goods provided meet the unique and stringent requirements of the military forces;

NOW, THEREFORE, BE IT RESOLVED that the AOC fully supports a strong Military-Industrial Team and acts to insure the integrity and ethical conduct of the relationship in accordance with DOD policies and the will of Congress.

V. PROCUREMENT CYCLE

WHEREAS, Electronic Warfare is a unique discipline in that the life cycle of effectiveness is completely dependent on changes in the threat environment; and

WHEREAS, the current procurement cycle for new EW systems from initiation of R&D to completion of production can span a period of up to nine years; and

WHEREAS, intelligence on new threat systems or changes in threat systems in nearly every instance does not become available until the threat system is operationally deployed;

NOW, THEREFORE, BE IT RESOLVED that the AOC strongly urges the Military Services and the DOD to recognize these factors and initiate appropriate changes in the procurement regulations that will significantly reduce the procurement cycle, both in R&D and production, for EW systems.

VI. SAFEGUARDING NATIONAL SECRETS

WHEREAS, EW systems are designed to degrade the electronic capability of an adversary and it is essential that the techniques used to that end be kept secret from potential adversaries; and

WHEREAS, the information necessary to exploit the adverse electronic capability is obtained thru electronic surveillance and intelligence sources it is imperative that the intelligence information gained be safeguarded; and

WHEREAS, any revelation of classified information from or by whatever source, may jeopardize our National Security;

NOW, THEREFORE, BE IT RESOLVED that the AOC urges the Congress to enact a comprehensive National Security Law that will insure the highest level of intelligence effort.

EW

At Last: 10 Years of EW and Crow Caws

Finally.—a multiple index of *Electronic Warfare Magazine* and its predecessor, *Crow Caws*, together with some good news on information retrieval of back copies.

Stephen L. Johnston
Professional Engineer

The Editors of *Electronic Warfare Magazine* are pleased to present the first-ever complete compendium of material on the magazine and its predecessor publication, *Crow Caws*. The magazine is now in its eighth consecutive year of publication and we are continually receiving requests for back issues.

With the exception of the Library at Maxwell Air Force Base's Air University, there is no central location containing all back issues of the publication. We are sure that many readers have complete sets on an individual basis and the Editors are now arranging for a complete set to be placed with University Microfilms.

History. When the Association of Old Crows was founded on October 4th, 1964—and subsequently incorporated on October 6th, 1965—the aims and purposes of the organization, as stated in its original by-laws, were furthering the art of electronic warfare, exchanging ideas and information, recognizing significant accomplishments in the field and documenting the history of electronic warfare.

In October of 1965, a magazine called *Crow Caws* was started, and then subsequently changed to *Electronic Warfare in the Winter of 1969*. The magazine was then published as a quarterly up to and including 1972. In January of 1973, the magazine became a bi-monthly publication and continued editions have been published six times yearly since that time.

In the decade that has passed, then, some 42 issues of the magazine have been published, with more than 200 authors, a large number of tables, indices and staff reports. Unfortunately, many of the early issues are not available.

Editions from 1973 onward are now available from:

University Microfilms International
A Xerox Company
300 North Zeeb Road
Ann Arbor, Michigan 48106
Toll Free (800) 761-4700

In addition, back issues of *Electronic Warfare* will be available to non-U.S. readers through University Microfilms' international activity:

University Microfilms Ltd.
St. John's Road, Tylers Green
Penn, Buckinghamshire
ENGLAND

In 1975 *Electronic Warfare Magazine* and its companion *International Countermeasures Handbook* were placed on file in the Library of Congress and will soon be available through the National Technical Information Service (NTIS) service.

The Editors want to acknowledge the contributions of Mr. Stephen L. Johnston for his invaluable assistance in the preparation, research and presentation of this data. The Editors invite reader comment on the use and utility of this index.

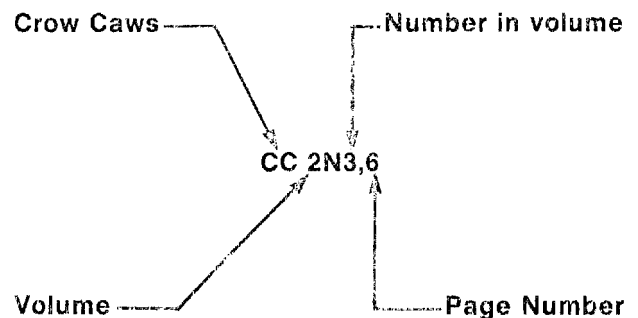
How To Use The Master Index

The master index is divided into nine parts as follows:

Part Index Element

- I List of published issues
- II Contents by issue
- III Author's Index
- IV Subject Index
- V Speeches Index
- VI Theme Issue Index
- VII Tabular Data: Who's Who/Organization Charts
- VIII Conventions/Conferences/Symposia Index
- IX Personalities Index

Parts III through IX identify articles by their volume, issue number and page of the edition. The first three issues of *Crow Caws* are identified by *2nd Conv.* and *3rd Conv.* with no theme applicable. The remaining entries for *Crow Caws* are preceded in Parts III through IX by the notation: CC. The following illustration shows the coding:



Note—Indicates *Crow Caws*, Volume 2, Number 3, page 6.

Electronic Warfare Magazine entries do not have the CC prefix, otherwise all coding is the same.

A

INDEX

Part II—Contents by Issue
EW Magazine (cont'd)Volume 7, No. 6—November/December 1975
Special Report: EOEW

- p.21 *Electro-Optical EW Seen Key to New Developments*, Harvey Rinn, Joseph Savino
- p.22 *Army EOEW System Detailed: ALQ-144*
- p.24 *U.S. EO & IRCM Budget Outlined*
- p.26 *Who's Who in EOEW (in industry)*
- p.30 *AN/ALE-39 Countermeasures Dispenser Systems Detailed*
- p.33 *AN/ALQ-123: IRCM Pioneer*, Roger C. Farmer
- p.38 *Infrared Comes of Age in the World of Electronic Warfare*, Dave Fitzpatrick
- p.50 *Army EOEW Systems Detailed: ALQ-147*
- p.52 *Compact Frequency Calibrator Checks ELINT Receiver Performance*
- p.55 *Digital Control for Effective Power Management*, John Moran and Charles B. Balsler
- p.63 *Is Inflation a New Malady in Defense Planning?* Adm. Frederick H. Michaelis
- p.64A *Euro-Form: Countermeasures Conference Slated*
- p.70 *President's Message: AOC Technical Program 1975-1976*

Part III—Author Index

Allison, Andrew A. — 5N5, 81
 Almqvist, Lt. Gen. E. H. — 6N1, 51
 Anderson, Charles E. — CC 2N3, 6
 Balsler, Charles E. — 7N6, 55
 Bates, D. J. — 5N2, 53
 Behnke, Albert O. — 1N2, 10; 3N3, 12
 Belfer, J. U. — 7N1, 103
 Belrose, F. M. — CC 2N1, 28
 Bert, Joseph E. — 7N5, 45
 Bonner, Col. M. Michael — 5N5, 45
 Bradley, General Mark — 4N1, 20
 Brown, Adm. Sam R., Jr. — CC (no theme) 8
 Brown, Charles G. — 4N3, 14
 Brown, Congressman Clarence — 2N4, 4
 Brown, Ron — 5N2, 71
 Bruenner, Colonel William — 6N3, 38
 Budd, William E. — 3N2, 4
 Bullock, L. G. — 4N1, 34; 4N2, 12
 Burke, Major Charles G. — 7N5, 41
 Butler, Dr. Thomas W. — 3N1, 14
 Byrd, Senator Robert S. — 1N1, 20
 Byrom, Cecil — 4N1, 7
 Casperson, Jon C. — 2N4, 35
 Catton, Lt. Gen. Jack — CC 2N3, 12
 Chamberlain, Kent — 4N2, 10
 Cohen, Simon — 7N5, 93
 Collins, Prof. H. J. — 7N3, 32-A
 Crawford, Willie — 2N1, 11
 Cummings, R. Adm. C. Ward — 5N3, 29
 Curry, Dr. Thomas F. — 4N4, 4; 4N4, 26
 Daly, Thomas E. — CC 2N5, 31
 Deane, Jr., General John R. — 7N5, 51
 de Poix, Adm. — 3N1, 4
 de Rocher, James — 3N4, 16
 Dixon, R. C. — 4N3, 34
 Eans, C. S. — 4N1, 52

Eaton, Charles — 1N4, 7
 Eaton, Lt. Col. W. F. — 7N3, 30; 7N3, 41
 Edson, Major Paul R. — 7N5, 61
 Eldecreek, Gil — CC 2N4, 18
 Enge, Francis J. — 2N1, 12; 4N1, 10
 Ernaudes, Frank A. — 7N5, 75
 Eustace, Harry F. — 7N4, 55; 6N1, 43
 Farmer, Roy C. — 7N6, 33
 Fitzpatrick, Dave — 7N6, 38
 Flaherty, James M. — 4N2, 8; 5N2, 37
 Fleischer, Frank — 3N1, 16
 Fomichev, K. I. — 6N2, 50
 Forrest, J. C. — 7N1, 103
 Garbouchian, Vaughn — 1N4, 24
 Gibbs, Maj. Gen. David P. —
 CC, 2nd Conv., 22
 Gillis, R. G. — 7N3, 36
 Godding, M. Gen. George A. —
 6N1, 54; 7N5, 25
 Goldwater, Senator Barry — 2N1, 8
 Gorman, Lt. Col. Thomas P. —
 7N1, 27; 7N5, 33
 Grant, Alan J. — 5N3, 69; 6N3, 33
 Greiser, John W. — 7N3, 67
 Gromer, Dick — 1N4, 24
 Gulley, C. T. — 5N6, 68
 Haley, Daniel E. — 2N2, 4
 Handzel, Paul S. — 3N1, 15; 3N2, 12
 Hapgood, W. H. — 1N2, 7
 Hardin, Clyde D. — 6N2, 33
 Harper, Terry — 6N2, 11
 Heilmeier, Dr. George —
 5N2, 21; 6N5, 39
 Heintz, K. J. — 5N5, 87
 Hice, J. R. — 1N3, 10
 Hurd, Major Peter — 2N2, 17
 Hurley, G. W. — 5N3, 51
 Huse, W. — 3N4, 16
 Hyatt, Bland B. — 6N6, 62; 7N1, 122
 Hylton, Harvey T. — 7N3, 43
 Johnston, Stephen L. —
 6N3, 41; 6N6, 49; 7N1, 48; 7N3, 59
 Jones, General David — 7N2, 21
 Jordan, Gary Blake — 5N4, 67; 5N6, 63;
 6N1, 72; 6N3, 65; 6N4, 37; 7N1, 48;
 7N4, 69
 Judd, Colonel James — 7N5, 101
 Kaplan, Albert — 1N4, 13
 Kasporek, Dennis D. — 7N5, 70
 Keaton, Colonel Jack Lee — 7N5, 103
 Keenly, R. R. — 5N1, 63
 Kidd, Jr., Admiral Issac C. — 5N1, 14
 Kilpi, William — 7N5, 52
 Kivi, Aare — 2N4, 32
 Klaassen, Jr., Clarence F. — 7N5, 133
 Klein, Walter F. — 5N6, 71
 Knight, R. I. — 5N2, 53
 Konotchick, John A. — 3N3, 33
 Kruty, Martin P. — 3N2, 16
 Kushner, Allan M. — 6N2, 59
 Laird, Melvin R. — 4N1, 4
 Lander, Bob — CC 2N5, 32
 Lane, Thomas — 6N5, 24; 7N2, 36
 Lampos, N. J. — 6N6, 44
 Lanza, Frank — 7N1, 81
 Legin, Joseph L. — 6N3, 72
 Leichman, Capt. Stephen A. — 6N3, 74

Leonov, A. I. — 6N2, 50
 Linton, F. D. — 5N6, 68
 Little, J. A. — 5N6, 68
 Mack, Erik — 7N2, 32A
 Marcus, Mel — 1N2, 18; 1N3, 7;
 4N1, 5; 7N3, 75; 4N3, 28
 Margerum, Donald L. — 2N2, 8; 2N3, 5
 Mark, Major John W. — 5N3, 56
 Massey Stoney — 5N3, 57
 Matthews, Dr. Allen R. — 3N3, 4
 McElhowe, Donald M. — 4N2, 6
 McRaven, Pilgrim W. — 7N2, 23; 7N3, 55
 Meyer, Maj. General Stewart C. — 6N2, 27
 Meyers, John E. — CC 2N3, 11
 Michael, Major A. L. — 2N4, 5
 Michaelis, Adm. Frederick H. — 7N6, 63
 Mikles, Major George A. — 2N4, 10
 Miller, Barry — CC 2N4, 8
 Miller, Bruce — 7N5, 93
 Miller, Frank — 6N5, 59
 Miller, O. W. — CC 2N5, 12
 Minck, John L. — 3N2, 7; 4N3, 6
 Mitchell, O. B. — 6N6, 36; 7N3, 24
 Mintz, Martin — 2N3, 6
 Mirman, I. R. — 1N1, 28
 Montoya, Senator Joseph M. —
 CC 2N3, 8; 1N2, 14; 2N2, 6; 3N2, 28
 Moran, John — 7N6, 55
 Morin, Capt. Robert A. — 7N5, 66
 Morin, Henry J. — 4N1, 10
 Murray, Dick — 2N4, 7
 Musial, Fred A. — 4N1, 34; 4N2, 12
 Newitt, Jack — 7N1, 112
 Nicholson, J. E. — 6N1, 81
 O'Donnell, Richard V. — 7N5, 111
 Oeh, G. R. — 4N1, 34; 4N2, 12
 Oleari, Gary — 3N1, 8
 Oliver, Terry — 7N5, 115
 O'Shaughnessy, T. Sgt. John — 4N2, 15
 Owen, Major T. M. — 6N3, 27
 Pahl, Colonel Phillip — 5N3, 16
 Pederson, Chet — 7N1, 100
 Perry, J. L. — 2N2, 11
 Philbin, Michael J. — 7N4, 21
 Pollakoff, O. E. — 5N5, 87
 Porter, John W. — 5N1, 11
 Proud, J. M. — 5N5, 92
 Randise, Dominich — 7N2, 46
 Reid, James R. — 1N4, 9
 Reid, Sqd. Leader David —
 CC, 3rd Conv., 7
 Reynolds, G. Lyle — 2N1, 5
 Rhode, Ulrich R. — 7N1, 91; 6N5, 83
 Richards, H. E. — 4N1, 16
 Richardson, Secretary Elliot L. — 5N3, 15
 Rienzi, M. Gen. Thomas M. — 6N6, 35
 Rinn, Harvey — 7N6, 21
 Rogers, Kenneth O. — 1N3, 10
 Roubadeaux, Donald L. — 3N4, 21
 Runyon, Major Floyd L. — 6N1, 52
 Russell, Robert F. — CC 2N1, 28;
 CC 2N4, 28; 1N3, 10; 4N1, 16; 5N3, 57
 Rutter, Paul — 6N4, 37
 Ryan, T. — 6N5, 76
 Ryken, Marvin — 3N1, 16
 Salapski, G. D. — 7N4, 75
 Saloom, Joseph A. — 6N5, 48

EW

Publisher's Memo

On Z-Gram's, SALT and The Economics of Détente

When retired Admiral Elmo Zumwalt was Chief of Naval Operations, his tenure was characterized by the "Z-Gram", which emphasized getting to the point, cutting red tape and wasting no time. Recently, the former CNO issued another Z-Gram of sorts when he testified before a Congressional Committee on SALT. And Zumwalt's ability to get to the point was never more vividly evident when he charged naivete, ineptness and concealment on the part of U.S. SALT negotiators and the principal architect of U.S. SALT strategy, Secretary of State Kissinger.

Recent evidence of Soviet experimentation with high power lasers to blind U.S. warning satellites conclusively proves the existence of that lethal analog we spoke of in our last issue. It also raises some serious questions about our intelligence community's ability to detect SALT violations or provide pre-emptive first strike warning of a Soviet attack.

Washington is now openly speculating as to *when* Secretary Kissinger will be jettisoned by the Administration, and no longer *if* he will be discarded. Kissinger's popularity is probably at an all-time low. He was defeated in several Congressional votes on military aid to Turkey. Supporters of Israel have charged that he is putting undue pressure on the Jewish state. Even the dispatch of 200 American technicians to the Sinai, to implement the Middle East truce, took more than a month to get through Congress although it should have cleared easily. A Kissinger endorsement no longer means smooth sailing on the Hill for foreign policy legislation. Congress has come to view Mr. Kissinger as being politically vulnerable. One example of this is the Pike Committee's willingness to pursue contempt citations against the Secretary in connection with their investigations of intelligence activities.

It is at this writing difficult to figure out what effects all this criticism has had on Mr. Kissinger's standing abroad. One is prompted to wonder what the Russians think about an accord on SALT and the ability of Kissinger to get it through the Senate. But one thing is for sure, the essential Soviet view of 'stronger is better' still prevails.

Kissinger's SALT strategy—as enunciated in his address to NATO foreign ministers on December 11, 1973—perhaps the best illustration of his political hand of short-term pessimism and long-term optimism. Soviet intervention in Angola and their continued push ahead with a variety of new weaponry are

well taken, but his optimistic trust that economic culities and incentives will ensure Moscow's accord of détente might be misplaced. The prestigious national Institute for Strategic Studies sees a continuing strengthening of Soviet forces, especially in view of Russia's bleak record with their grain harvests, once again points out their humiliating dependence on the U.S. Therefore, it should not surprise that the Soviets pushed ahead with the high power laser cause their basic posture is that it is better to be strong than weaker. Traditionally, Soviet responses to Western military technological advances has been with equal quantity. Now we have evidence of sophisticated quantity in ERP.

History points out that economic relationships have proven incapable of sustaining political relationships of stability, peace and order. Political relationships provide the indisputable leadership within which mutually beneficial economic relations evolve. In the absence of this political prime mover, economic exchange provides no guarantee of peace or mutual gains. One example of this is the listless drifting of the Common Market, which hoped to achieve political unity through economic accord in Europe. Those who point to the logic of economic rationality between the U.S. and the U.S.S.R. as the basis for political accords might reflect on these lessons of history.

And, in the case of the electronic warfare competition which is a strong technological repository of Soviet balance in any SALT formula and a significant economic entity in its own right, any cruise missile concessions for Backfire bomber restrictions can only make the United States a clear and indelible target. Two in the eyes of an adversary who aspires to a parity of technological strength. And while the political and economic aspects of this nation's SALT strategy are complex and based on many elements, one can regard the candor of the Zumwalt testimony and the concerns it raises.

Just how technology enters into the SALT negotiations is still, as yet, undetermined. It still remains to be seen what technological concessions might be required for détente, but in view of the Soviet penchant for the use of their newly acquired sophistication in technology to gain the impression of strength, we are negotiating a strategic balancing mechanism. Sad, but not too late if the Commander-in-Chief issues Z-Grams.

Harry

EW's New Look For 1978

EW is going *monthly* in 1978. Next year we promise that you will receive twice as much information. To insure the reader of this, the Publishers have expanded the staff to include some impressive names in the electronic industry.

- **Barry Miller**, one of the aerospace industry's most respected editors on military electronics, avionics and technology, has joined our staff as Executive Editor. Mr. Miller's distinguished career at *Aviation Week & Space Technology* has earned him the reputation as the Dean of electronics and avionics journalism.

As the winner of several awards for his series in *Av Week* on such topics as "The Growing Threat", Mr. Miller is renowned for his well-researched factual reports—hallmarks of the writing craft.

We are certain that you, our readers and advertisers, will find the new 1978 editions of the magazine full of material that will put *EW* at the top of your required reading list. With Barry Miller as the Executive Editor of this publication, our expansion to monthly is a commitment to provide you with the best quality of editorial material of any publication in our field.

- **Richard Davis**, who joined our publication in April of 1976, has become Editor. In the 18 months Mr. Davis has been with *EW*, he has brought the depth of focus to our pages that won him the coveted Jesse Neal Award (industrial publishing's version of the Pulitzer Prize). Some of Mr. Davis' more notable efforts in the magazine have included the Staff Reports on Ship's *EW*, our ASPJ/Commonopoly Report in January (there is a sequel in this issue), and his most recent effort on the Navy's SLQ-32(V) Design-To-Price program. Based on reader response to these reports, our continued investment in a better product for the reader merits this promotion.

- **Harold Hechtman**, another long-time figure in the defense electronics industry, has joined us as Director of Special Projects. Mr. Hechtman will work with the various Program Management personnel in Government and Industry to provide our readers with in-depth coverage on specific military programs. After a long and distinguished career at AIL Division of Cutler-Hammer, Mr. Hechtman was the Director of Special Projects at McGraw Hill's *Aviation Week & Space Technology*.

The new team on *EW* is composed of recognized professionals in their field. That's progress, that's service, that's confidence. We will be bringing you twice as many editorial titles next year, with almost 40% more editorial pages. Right from our bold covers to our "articles of record" from leading authorities in government and industry, the new *EW* will merit the label **Required Reading**.

We also take pleasure in announcing the addition of **Frank Moncrief** as Associate Technical Editor, **Jacalyn Toorenaar** and **Mary Bennett** as Editorial Researchers, and **Karen Depew Michael** as Copy Editor. In the Production Department, **Mark Seymour** has joined us as Art Director and **Hans-Joachim Wacker, Jr.** as Associate Art Director. We are certain the Production Department will add another dimension to the magazine, because we're not only interested in editorial but we also want the liveliest looking publication in the field.

The new *EW* staff is ready to provide you with professional material designed to give you more insights and ideas, with all of them timed to be of greater use to you.

Finally, as Publisher of *EW*, I would like to add my personal commitment to provide balanced "real time" coverage that's on the mark, of professional value and designed to give you more ideas and information than ever before.

Harry F. Eustace

Spd - Dec 77

What's In Our New Name?

With this issue, *Electronic Warfare Magazine* has changed its name to *Electronic Warfare/Defense Electronics* to better reflect the expanding nature of the market and audience we serve. With our new name, *EW/DE* for short, we believe we can more effectively embrace the entire military environment addressed by the techniques, systems and equipment which we traditionally associate with the term electronic warfare.

Recent advances in data processing and newer weapon system concepts are already blurring traditional demarcation lines between what we usually identify as electronic warfare and the entire spectrum of military electronics they are intended to counter. No radar, communications, or missile design group, for instance, can fail to take into account those techniques that might be employed against them by a potential adversary. Defense electronics and the countering techniques against them are becoming more and more interdependent. In this sense, the name electronic warfare simply is an inadequate characterization.

The combination of our expanded editorial scope and the monthly publishing frequency we are instituting in January will enable us to continue to report in depth and breadth on developments and trends in electronic countermeasures, radar warning systems and other instruments normally associated with electronic warfare. At the same time, we will be able to explore in some detail other timely aspects of defense electronics of concern to engineers, managers, and officials within the defense

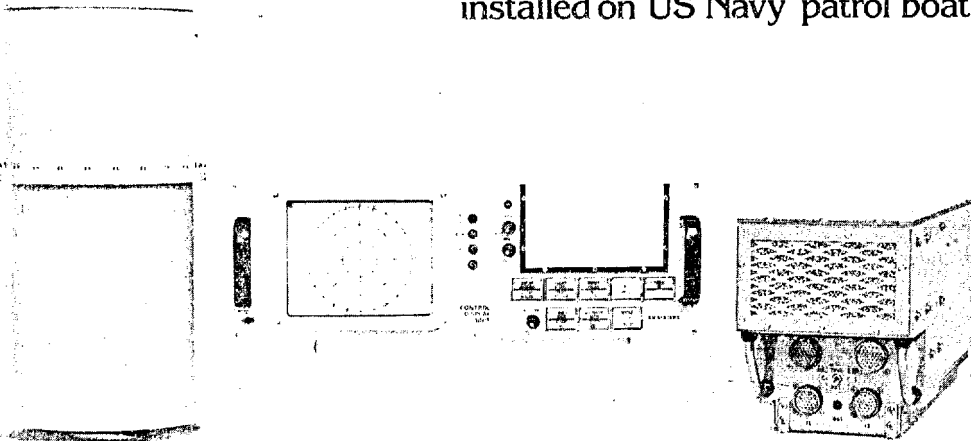
community. In this issue, as an example, there are two articles dealing with the increasingly prominent role played by electro-optics in strategic surveillance and in battlefield surveillance, navigation and weapon aiming. Electro-optics in its own right is one of the several emerging technologies having a strong impact on modern military operations. In recognition of this, an expanding number of research and development groups in this country and abroad have begun to grapple with threats to military operations posed by electro-optics. The electronic warfare community can ill afford to ignore new electro-optical developments if it is to keep abreast of future threats. Subsequent issues of *EW/DE* will carry other articles probing areas of vital interest to the field of electronic warfare and the broader arena of defense electronics of which it is a part.

We believe this expanded scope will give our readers greater flexibility in growing with the dynamic field we all serve. At the same time we hope to make possible the investigation of new technologies and their military applications. *The Editors*

ELECTRONIC WARFARE DEFENSE ELECTRONICS

\$30K is Cost Effective Computer Controlled AN/SLR-21 NEW Passive Electronic Warfare System.

The only EW System developed for and installed on US Navy patrol boats.



Automatic: Emitter ID, Direction Finding, Pulse Train Deinterleaving, Built in Test.

Energy Credits for the Defense Industry?

The United States' record trade deficit for 1977 was due mainly to the soaring costs of energy. And right now, the President's energy program is stalled in Washington with less than bright prospects for passage, at least in its original form. Since Carter's call for a national conservation effort, we've made only minimal progress. As a result, deficits continue to pile up, threatening our entire economy.

The Commerce Department is quick to discount any assertions by the aerospace industry that loosened export controls would offset trade imbalances. They say there aren't enough arms sales clients in the world to soak up \$30 billion in energy costs. So much for that idea.

One major element of the President's energy package is its appeal for conversion back to coal-based fuels. There is an abundance of coal in the United States, but the attendant costs of reverting to its widespread use are staggering. Availability of coal-based systems is, in itself, a problem: the waiting period for U.S. industry would be something like five years.

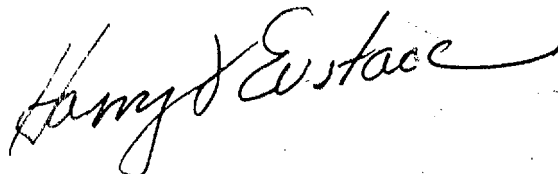
The Administration is certain to offer tax credits to companies willing to use coal. But will it really sell industry on the conversion idea?

During last year's fuel crisis in the eastern United States, many companies added energy surcharges to their operations bills during the shortage period. If that was acceptable, why couldn't these same firms affix to their tax returns photocopies of their energy invoices, provided they had reduced their consumption by 25 percent? If, in addition to tax credits, corporations were awarded "profit points" for their conservation efforts, alternative energy systems would seem more attractive.

The notion of profit points is predicated on American industry's need to generate profits with which to fuel the economy. Let's take the steel industry as an example. In addition to facing unfair competitive practices from abroad, big steel must bear the expense of complying with controls established by the Environmental Protection Agency and the Occupational Safety and Health Administration. At the end of its third quarter in 1977, Bethlehem Steel posted a \$477 million loss, the largest ever incurred by an American corporation.

We hope this predicament will never occur in the military electronics industry. Perhaps the solution calls for industry leaders to take the first step. We believe they should press for conservation incentive programs as a measure of insurance against the sort of crisis that befell Bethlehem Steel.

The next time you receive an invoice from a supplier with prorated energy increases listed as a line item, maybe you'll begin thinking about this. We can't all continue to pass along these increases because, after all, the proverbial buck must stop somewhere.



Irreconcilable Differences: A Parting of The Ways

During the past two years, the publishers of *Electronic Warfare/Defense Electronics* have been devoting considerable time and energy to an examination of relationships between the magazine and the Association of Old Crows.

Both parties considered it essential that every possible step be taken to develop a viable framework within which a widening divergence of interests could be reconciled to the mutual benefit of all concerned. Many individuals on the AOC Board and within the management of this magazine gave tirelessly of their time and energy to encourage a renewed sense of confidence and trust on which meaningful renegotiation of a working agreement could begin.

It became increasingly apparent last September that both parties had reached a point where effective compromise had been precluded, and that the issues dividing the AOC Board of Directors and the magazine's management were irreconcilable. Therefore, following a review of our efforts toward reconciliation along with an examination of alternatives developed as a result, the magazine's management elected to pursue a negotiated separation.

It seems inappropriate to present an examination of the issues which divided the Board and the magazine because, at best, they cannot objectively represent the adversary position. Suffice it to say they are irreconcilable. In one sense it is disappointing that the total membership was not consulted or polled as to its preferences.

What About the Future? The magazine's staff opted to increase the frequency of publication early this year and we have been delivering the magazine with the same timely but timeless material you've come to expect. But in the future, if you wish to receive *EW/DE*, it will no longer come to you as part of your AOC membership fee.

Following a thorough review of our relationship with you, our valued readers and members of AOC, the management of *EW/DE* have structured a special offer to Old Crows whereby you can continue to receive your subscription to the magazine throughout the term of your 1978 membership. **We must receive your written request by August 31, 1978, to continue your subscription.**

Our publishing agreement with the AOC precludes incorporating any subscription cards in member issues, which means if you want to continue receiving the magazine for the remainder of the year free, we'll need your written request.

We clearly recognize our responsibility, both contractually and to you as readers. We have attempted to provide you, the membership, with a unique magazine unavailable elsewhere in the Free World. We continue to hold this objective and look forward to the participation of all Old Crows who share that vision.

Harry F. Eustace

Act today so that your request for free continuation of your *EW/DE* subscription may be processed well before the August 31 deadline. Requests should be mailed to:

**Circulation Manager
EW Communications
3975 East Bayshore Road
Palo Alto, CA 94303**

Protecting The First Amendment

Many readers of this publication are members of the intelligence community and no doubt they were shocked when the CIA Station Chief in Athens was killed as a result of his name being listed along with his function in an Athens newspaper. In fact, the recent spate of listing Western intelligence agents in the various periodicals of London, Paris and Washington has posed some serious problems for the intelligence community, if not the press itself.

Now any pycopath with the price of a Saturday Night Special or a stick of gelignite can blow up his own CIA agent. We are prompted to ask if any Soviet KGB agents' names and functions have similarly appeared in these publications. The answer is that they have not. But the first amendment to the constitution protects those busily engaged in Checkbook Journalism's most fashionable, if not disastrous, pursuit. Intelligence officers are well aware of the identity of their opposite numbers. Perhaps this publication should champion their similiar listing, but responsible journalism precludes this practice though the names are available.

CBS correspondent Daniel Schorr's admission that he made a secret intelligence committee report from the House of Representatives available to the *Village Voice* through an as yet un-named intermediary, is another example of Checkbook Journalism. In the case of correspondent Schorr, however, the funds were laundered. *The Voice* paid the Reporter's Committee for Freedom of the Press for the report's publication. Schorr, standing on constitutional grounds, did responsible journalism a great disservice by his commercial trafficking with secret documents.

While there could be considerable debate as to whether the Press should accept governmental direction as to the disclosure of material with the secret label, correspondent Schorr's ethical responsibility dictated that the material be used for the viewers of CBS News. Equally at fault here is the Reporter's Committee, whose lofty objective is protection of the same first amendment, which allows publication of CIA agents. The Reporter's Committee did itself no great honor by becoming a willing participant in the commercial traffic surrounding this purloined document. And to add a sad postscript, CBS noted that it would vigorously defend correspondent Schorr's right to protect his sources, again according to his constitutional guarantees.

There is no moral symmetry in this kind of journalistic behavior as we do not see the vast resources of the American press being turned loose to spirit similar secrets from various Communist regimes. Perhaps one reason we do not read dispatches like this is that they are not available. Correspondent Schorr, who has not utilized his organization's resources to expose

the KGB agent expelled from Britain, who is now busily plying his trade in Bangkok.

And there are those who believe that the Western World faces no threat at all, and the entire defense establishment is nothing more than commerical enterprise feeding off the imperialistic intentioned Governments of the West. Those who proclaim these beliefs should read the editorial in the Christmas eve edition of *Izvestia* if they feel that *détente* signals a lessening of global tension: "Détente does not mean and cannot mean a freezing of the social status quo . . . Support of national liberation movements is one of the most important principles of Soviet foreign policy."

Our national distaste to intervene against Soviet and Cuban-backed forces in Angóla has been championed on many of the editorial pages whose asymmetric balance looks the other way when CIA agents are gunned down in an Athens street. And there are those in our Congressional leadership who feel, because the bombast of a Khrushchev or Stalin no longer exists, that we as a nation might otherwise reorder our priorities at the expense of a strong national defense.

In all likelihood *détente* will serve to help the Soviet Union close the qualitative gap in military technology. The readers of this publication are already aware of our Number Two standing in quantitative readiness as exemplified by a Navy that had 976 ships in 1968 and now has some 483 vessels. This in the face of a major Soviet naval expansion program. It then remains for us, the members of the military technology community, to rebuff the challenges posed by Soviet technological gains and to maintain the last deterrent; for with an Air Force that procured some 181 planes in 1975 it is difficult to project how it could maintain a modernized inventory in the future. This in the face of new developments like Foxbat, Flogger, Fencer and now Backfire.

It becomes even more difficult to project how this nation can maintain its qualitative edge when its Press is busily engaged in the fashionable, albeit laundered, pursuit of the first amendment. It is then especially dispiriting to see idealistic youth in the Free World equate communism with morality and ourselves, the last bastion of true freedom, seen in the last stages of moral decay.

As the technological repository of freedom's first line of defense, we must take more interest in more than just the "hard sciences" that attend our professional activities. It now appears that part of our collective challenge will be a ready willingness to explain just what *electronic warfare* is to our peers—while the first amendment still protects our right to do so.

Approved For Release 2005/01/12 : CIA-RDP88-01315R000400160009-5 Harry F. Eustace