

Information Dissemination

* Information on following topics was collected and supplied to the indentors:

1. Camouflage
2. Remote Sensing
3. Airborne Radar
4. Rocket Trajectories Management
5. Underwater Laser Communication

* 'Patent Information Alerts' containing information on 55 patents of Defence interest were circulated to the scientists concerned.

* Ninety-nine abstracts of Defence reports were disseminated through the published Defence Reports Abstracts.'

* The information on Defence, DRDO and Science & Technology was scanned from the daily newspapers and brought to the notice of top management of DRDO.

* Information on the 'Developments in China' and 'Science and Technology in Pakistan' was circulated to the scientists through the two publications 'Spot News on China' and 'Science & Technology in Pakistan.' These contained 28 and 22 items respectively.

SDI Bulletins

Twenty-nine bulletins on Defence topics were brought out. The topics covered in some of the bulletins are as follows:

Missile Technology

This bulletin gives information on the development of air-to-air missiles for the 1990s, new air intercept missiles for the French Air Force, missiles launching system for Aegis Cruisers and the future MLR.

Naval Problems

Four bulletins on Naval problems containing information on anti-submarine warfare, torpedo, development of new underwater vehicles (small craft) and developments in submarine detection and their defence were issued.

Military Electronics

This contains an article on computer techniques for off-shore corrosion protection of Naval ships.

Armoured Fighting Vehicles

In this series current developments in the Defence R&D in weapons, AFVs of the future and Defence equipment newly introduced in Services or about to be introduced were reported. Latest development of Soviet Union's new T-80 MBT was also given.

Other SDI bulletins deal with information sciences, laser, materials, military and naval aircraft, military organisation and warfare, nuclear weapon and radar.

Improvements in 'Defence Science Journal'

Defence Science Journal, the research periodical of the DRDO has recently undergone significant improvements in the contents and the get-up. The inflow of contributions from the scientists of DRDO and other institutions, has also gone up. These improvements have received appreciation from many sources. Some of the appreciative comments received by DESIDOC are reproduced below:

'Compliment you on the fine quality being maintained of the Journal.'

S. Sampath
Director

Indian Institute of Technology
Kanpur

'Vast improvement in the presentation.'

Vivek R. Sinha
CCR&D(V)

Sena Bhavan, New Delhi

'The Journal is found to be very interesting and informative.'

A.K. De
Director

Indian Institute of Technology
Bombay

'The new format and printing brings it on par with the best scientific journal printed in India, and this will help the journal to project the image of DRDO appropriately.'

N.S. Venkatesan
Director
Armament Res & Dev Estt
Armament Post. Pune

'...Pleased with the printing and get-up of the Journal.'

S. Ramaseshan
Director
Indian Institute of Science
Bangalore

'The quality of printing has improved considerably.'

Y.R. Chadha
Chief Editor
Publications & Information Dte
CSIR, New Delhi

Publications

* A book entitled 'International Dictionary of Acronyms in Data Processing, Library & Information Systems' by V.K. Rangra, Scientist 'D' of DESIDOC has been published by Citation Publishers, New Delhi. It contains over 4000 terms covering institutions, associations, processes, techniques, systems etc. The book has been highly commended by experts in the field.

* A paper on 'Information Services of DESIDOC' by S.S. Murthy, Director and V.K. Rangra, Scientist 'D' has been published in the book 'Perspectives in Library and Information Science.' The book has been issued as Festschrift volume in honour of Prof. C.G. Viswanathan. The book also contains papers by experts from other countries.

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TRANSLATIONS

The following books/articles were translated :

Sl. No.	Title-Author	Indenting Unit	Pages Translated
RUSSIAN			
1.	Physical Metallography of titanium by B.A. Kolachev. Chapter IV—Disintegration of titanium and its alloys.	DMRL, Hyderabad	41
2.	Exterior ballistics by Ya. M. Shapir. Chapter IV.	IAT, Pune	34
3.	'Salyut-6' : Problems of increasing the effectiveness of observations. <i>Aviatsiya i Kosmonavtika</i> , 3, 1981, 42-43.	SA to CAS	2
4.	Study of the properties of Polydimethylorganosil-Sequioxanes by I.M. Khandna-Suvili and others. <i>Vyssokomolekulyarnie Soedineniya</i> , 22 (6), 1980, 1413-1419.	DMSRDE, Kanpur	7
5.	Hot hydrostatic pressure forging of the granules of heat-resistant nickel base alloys by A.F. Belov and others. <i>Doklady Akademii Nauk SSSR</i> , 247 (1), 1979, 90-93.	DMRL, Hyderabad	4
6.	Study of the rate absorption of protium and deuterium in activated LaNi 5-compound by B.M. Andreev and others. <i>Zh. Fiz. Khimii</i> , 5, 1980, 1195-1197.	DSC, Delhi	3
7.	New heterochain polymers on the base of cyclic imides of fatty acids by I.A. Arkhipova and others. <i>Uspekhi Khimii</i> , 47 (4), 1978, 705-738.	DSC, Delhi	21
8.	Acoustic properties and structural transformations in polyamidoimide films by E.L. Uchostnika and others. <i>Vyssokomolekulyarnie Soedineniya, Ser. B.</i> 1976, 697-699.	DSC, Delhi	3
9.	Synthesis and study of polymers obtained from N, N'-bis-(3, 4-dicarboxybenzoyl)-N, N'-diphenyl-n-phenylene diamine dianhydride by A.V. Trezvov and others. <i>Vyssokomolekulyarnie Soedineniya, Ser. B.</i> 1976, 700-703.	DSC, Delhi	4
10.	The processes occurring in polyimides during prolonged heating by N.G. Annenkova and others. <i>Vyssokomolekulyarnie Soedineniya, Ser. B.</i> 1971, 201-205.	DSC, Delhi	5

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| 11. Nuclear magnetic resonance in poly-pyromellitimide by Ya. G. Urman and others. <i>Vysokomolekulyarnie Soedineniya, Ser. B.</i> 1971, 912-915. | DSC, Delhi | 4 |
| 12. Semi-conductor diodes of selected types : special technical specifications. | DTD&P (Air) | 45 |
| 13. Classified documents. | SA to CAS | 92 |
| FRENCH | | |
| 1. Summary of nine articles on UFO. | SA to CAS | 23 |
| 2. Flight test programmes on the electro-magnetic effects of lightening. | SA to CAS | 11 |
| 3. Experiments study on detonation in gas role of chemical kinetics. Parts I & II. | TBRL, Chandigarh | 42 |
| 4. Physiological stress factors in space flights. | SA to CAS | 18 |
| 5. Specification NP L-54-1258 Type 5 Electrical connectors. | CRE, Nasik | 21 |
| 6. Synthesis of copolyester diodes. | ERDL, Pune | 33 |
| 7. Infra-red cameras. | SA to CAS | 21 |
| JAPANESE | | |
| 1. Piezo-gauge holder for the measurement of underwater detonation of small charge by S. Oinuma et al. | ERDL, Pune | 6 |
| 2. Device technologies by Y. Onishi et al. | LRDE, Bangalore & DDP, New Delhi | 9 |
| 3. Technology of input and output devices by A. Watenobe. | -do- | 7 |
| 4. Fabrication of Handi-timer by Nishimura. | IRDE, Dehradun | 4 |
| 5. Mutual transformation for S-parameters by K. Nishio et al. | DLRL, Hyderabad | 3 |
| 6. Inter-satellite communication technology by Nakashima N. | IRDE, Dehradun | 2 |
| 7. Thermal reactivities of nitro-compounds XI comparison of isomers of mono and di-nitro toluene by Hara Y. et al. | ERDL, Pune | 7 |
| 8. Combustion of Nickel added double base propellants by Kubota N. et al. | ERDL, Pune | 6 |
| GERMAN | | |
| 1. The 120 mm smooth barrel gun of Leopard-2 Weapon & Ammunition by Raimund Germieshauser. | CVRDE, Avadi, | 6 |
| 2. Combat tank Leopard-2 within the framework of international cooperation by Michael Jbama von Sternberg. | -do- | 2 |

An index of DESIDOC translations done in the year 1980 has been published under the title DESIDOC TRANSINDEX 1980. It contains 143 translated items from Russian, French, German and Japanese. It also contains source, author and subject indexes for facilitating information search from various approaches.

Translation Bank

Forty-four new translations done at or arranged by DESIDOC were indexed. Bibliographic information on 115 unpublished translations available with other Indian translation agencies were collected and classified on index cards for future reference.

New Additions

Sixty-three books and 604 reports were added to the Defence Science Library during the period. The books covered various subject areas like Library Science, Military Science, Astronomy, Mathematics, Chemistry, Meteorology, Ecology, Mechanical and Electrical Engineering, Electronics, Chemical Technology, Rubber & Plastics, Computer, Data Processing Mechanics and Typography & Printing.

Reprographic Activity

16,408 repro-copies were made during April-May 1982 on demand from Scientists in Metcalfe House Complex and from the other DRDO Labs/Estts. 48 slides were prepared for SA to CAS, Defence Terrain Research Laboratory and Directorate of Scientific Evaluation. Audio-

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3. Development of Logistic capabilities of combat tank Leopard-2 by Volker Elkermann.	CVRDE, Avadi	4
4. Anti-radar missiles for naval aircraft.	SA to CAS	3
5. Computation and measurement of piezo-resistive coefficients in silicon by H.M. Helm & D. Schubert.	SPL, Delhi	1
6. Piezo-resistive miniature pressure recorder for use in medicine by R. Werterschutsky.	-do-	1
7. Resistive and piezo-resistive coefficients of integrated semi-conductor resistances by D. Schubert.	-do-	2
8. The fire control unit of Leopard-2 by Jurgen Neumann.	CVRDE, Avadi	4
9. Training of armoured crew of combat tank Leopard-2.	-do-	4
10. The training equipment concept for combat tank Leopard-2 by Armin Simburger.	-do-	8
11. Structure and magnetic properties of Aluminium-Manganese alloys having more than 25% Mn.	DMRL, Hyderabad	10
12. Recombination in thyristors and rectifiers made of silicon : their influence on the forward characteristic and dynamic behaviour by F. Daunhauser & J. Krausse.	SPL, Delhi	29
13. Avalanche science instruction manual 56.880.	SASE C/o 56 APO	124
14. Torsion of commercial vehicle frames with open and closed cross-sections by H.J. Beermann.	VRDE, Ahmednagar	5
15. Optimum tail plane design for artificially stabilized aircraft by G. Sachs, <i>Zeit Pur Flugwissenschaft und Weltraumporschung</i> , 2 (1), 1978.	CRE, Nasik	10
16. Ecology and methods of mosquito control by Lugram Iglisch.	DRDE, Gwalior	5
17. T Turret of Leopard-2 by Kurt Heinz Kratzenberg Soldat & Technik 10/1980.	CVRDE, Avadi	4
18. Combat tank Leopard-2, a challenge for the armoured corps by Helmut Fischer Soldat & Technik 6/1981.	-do-	2

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visual facility was provided on four occasions and photographic coverage was provided to Solidstate Physics Laboratory, Defence Terrain Research Laboratory, Computer Centre, Defence Science Centre and for the Dr. Ramakrishna Memorial Lecture.

Printing Activity

Forty-nine printing jobs involving about 29082 impressions were completed. The jobs were received from the Scientific Adviser to Defence Minister, Chief Controller Research & Development (A), Chief Controller Research & Development (K), Dte. of Materials & Agricultural Sciences, Defence Institute of Physiology and Allied Sciences, Institute of Nuclear Medicine and Allied Sciences and Defence Science Centre.

One issue of 'Abstracts from Foreign Language Bulletins' consisting of 92 pages was printed by offset process. In addition, 82 pages of various bulletins/reports were also printed.

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* A paper entitled 'A study on the loss in transit of journals subscribed through a vendor' by V.K. Rangra and J.B. Mathur (Retd) of DESIDOC has been published in the Journal 'Annals of Library Science and Documentation, Vol. 29, No. 1, March 1982.'